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LECTURES.

CLINICAL LECTURE: CARDIAC HYPERTROPHY AND DILATATION, WITH PROBABLE ANEURISM OF THE THORACIC AORTA.

DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

BY PROFESSOR ALFRED L. LOOMIS.

GENTLEMEN,—This patient, who is about fifty years old, says that he has not been well for twelve months. The first thing that he noticed was a severe pain in the breast, which was not constant, but was considerably increased by exercise when present. He does not know whether he would have been entirely free from it if he had remained perfectly quiet, as he has been obliged all the time to attend to his regular occupation, which is that of a carpenter. At first there were more or less extended intervals between the paroxysms of pain, but these intervals gradually became shorter, until more recently he has had at least one attack every day. Of late, he feels the pain not only in the breast, but in the stomach and abdomen also. When I ask him if there is any posture which gives him relief, he says that when he lies upon the chest, causing considerable pressure to be made, he gets the most ease. At night he is not able to lie flat down in bed, but always sleeps in a semi-recumbent position. On inquiry I find that he has had three attacks of general acute articular rheumatism. The first occurred when he was fourteen or fifteen years of age, and confined him to bed for about six weeks.

He once had a sore upon the foreskin of the penis, and this was followed by an enlargement of the glands of the groin, which did not suppurate. There was no eruption, though he says he had sore throat for a short time, and also very slight pain and tenderness along the shins. He never had any inflammatory affection of the eyes. He is a married man, and has healthy children, while his wife has had but one miscarriage. He thinks he has had intermittent fever, and says that he had what he calls “dumb chills” (manifesting themselves in creeping sen-

sations and pains in the limbs) for seven or eight years. He has had a slight cough for a considerable time, and the expectoration in connection with it is usually white. Two or three weeks ago, however, it was discolored with blood, which was not mixed generally through it, but occurred in streaks. Once, for a short time, it seems that he had a general swelling of the body, which was by far the most marked in the feet, and which subsided during the night. He never noticed anything peculiar about his urine. He has no difficulty in swallowing.

What he comes here for, he says, is to seek relief for shortness of breath, and the pain in his chest, stomach, and abdomen.

Let us now see what light a physical examination will throw on the history which you have just heard. On inspection and palpation of the thorax, we find that the upper part of the chest just to the right of the sternum is a little more prominent than it is on the opposite side. Respiration is somewhat labored, and while the impulse of the heart is further to the left than it should naturally be, there is also a very marked epigastric impulse. In addition, we find a pulsation in the upper portion of the chest to the right of the sternum, as well as in the neck (in the subclavians). Where the pulsation to the right of the sternum is seen, a distinct purring thrill can also be felt upon palpation. Does a purring thrill in this position indicate aneurism? Possibly it may, but the probability is that it does not. Purring here is ordinarily evidence of a simple dilatation of the arteries, rather than of an aneurism. The only point that we can determine without much question from inspection and palpation in this case is that there is hypertrophy of the heart with dilatation present.

Passing to the other physical signs presented here, we find that vocal fremitus is considerably greater on the right side than the left, and percussion shows slight dullness on the left side behind. When we listen to the chest, we get pure vesicular respiration on the right side, while on the left this is somewhat diminished. The breathing has no tubular character, however. Over the upper part of the left lung behind there is bronchial fremitus, with pretty loud sonorous râles, while towards the lower part distinct friction sounds can be heard.

When the patient lies down, it is seen that the epigastric impulse disappears to a great extent; and the same is true of the impulse of the heart over an increased area, as well as the pulsations in the upper part of the chest and the neck. The purring thrill which has been mentioned also becomes very slight. By the act of lying down coughing is excited, and you will notice how red his face is made thereby. On making percussion over the infra-clavicular spaces, we find that, extending on both sides of the sternum to a considerable distance, there is very marked dullness. If vertical lines were drawn from the two nipples upwards towards the clavicles, the space between them would almost correspond

with the upper portion of the area of dullness. This whole area is somewhat the shape of a parallelogram, and is found to slant obliquely to the left as we percuss downwards, involving the left nipple, and extending considerably beyond it below, but passing somewhat to the left of the right nipple. Beyond the line of dullness on either side (that is, towards the outer end of the clavicle), the percussion note is almost tympanitic. All the lower portion of this large area of dullness can be satisfactorily accounted for on the supposition that there is hypertrophy of the heart, with dilatation. We find, indeed, that inferiorly the cardiac dullness does not reach much further than it should in health ; but otherwise it is very abnormal in extent. The dullness in the upper part of the chest corresponds in general with the portion of the aorta, involving the mediastinum, and extending somewhat further to the right than to the left.

The pulse is not very full, and is not at all jerking in character. On applying the stethoscope at various points over the above area of dullness, we find that there are two murmurs, corresponding in general with the first and second sounds of the heart, and heard with the greatest intensity at the base. One of them, at least, seems to be conveyed upward into the carotid arteries. The question is now, Have we an aneurism here ? But suppose that there was an aneurism ; would we be likely to have a double murmur of this kind with it ? Undoubtedly it might occur ; but where this is the case, it is an exception to the general rule. Some, indeed, deny that we ever have two murmurs with an aneurism ; but I have heard them too often myself to accept such an opinion as that. In exceptional cases, then, where the sac is large, and there is a good deal of fibrinous deposit, there is a murmur (corresponding with the first sound of the heart), caused by the blood rushing into the sac, and a second one (corresponding with the second sound) by the recoil of the blood. As the patient bends over forward, it is found that the murmur becomes louder and rougher ; and when the hand is placed over the heart, a diffused and somewhat heaving impulse is felt, while the impulse to the right of the sternum is increased.

As to the condition of the lungs, there must be either some obstruction within the large bronchial tubes or else external pressure upon them. On the right side particularly there is evidently obstruction of entrance of air into the lung. The cough that he has, however, is not of a character which would indicate compression of either the recurrent laryngeal nerve or the trachea. There is found to be some tenderness in the epigastrum, the liver is normal in size, and the spleen seems to be slightly enlarged. The pulse is not very full, but it is not at all jerking in character. It is not accelerated, and there is no difference in it at the two radial arteries.

Still the question comes up, Have we an aneurism here? Many observers would decide from the evidence which is now before you that there was undoubtedly an aneurism of the transverse arch of the aorta, and they would certainly have a fair show of reason for such an opinion. Personally, however, I should hesitate to make the diagnosis of aneurism in this case until I had kept it under observation for a considerable time. By experience I have learned to be conservative in these matters, and I am positive that I have sometimes met with all the physical signs which are present here when there was no aneurism at all, but only a simple dilatation of the aorta, with thickening of the tissues about that dilatation. Still, the long-continued, deep-seated pain which this patient has complained of (and which is relieved by the pressure caused by lying upon the chest), and the fact that it is increased after exercise, point towards the diagnosis of aneurism. While, then, it is perhaps probable that there is a thoracic aneurism here, we must not forget that we may have only hypertrophy and dilatation of the heart, with considerable mediastinal thickening. It is a curious fact that this condition of the heart, which is undoubtedly present here, is seldom met with in connection with aneurism, and I have often wondered why the heart is not more affected in this disease. With the most enormous aneurisms I have again and again found the heart perfectly normal, and performing its work in the most efficient manner.

Before dismissing the case, I would call your attention to one other point, and that is the possibility of there being disease of the kidney here. If this were found to be the case, it would help us to account for certain of the symptoms present, which now seem to be due entirely to pressure. In any event, however, the prognosis is not a very favorable one in this patient.

THE MALARIAL CACHEXIA.¹

BY J. O. WEBSTER, M. D., AUGUSTA, MAINE.

ALL physicians who have much professional intercourse with the soldiers of our late war soon learn to recognize a peculiar state of the constitution, not well explained in books, but very characteristic, which is commonly ascribed to malarial poisoning. The name of "chronic malarial poisoning," or "toxæmia," is quite generally given to this condition. But to this term there is the objection that it is the appropriate designation of a form of disease caused by long-continued or chronic exposure to the influence of malaria, which was very common in our army, and is abundantly described in medical literature; while in the condition with which we have to do at present, the remote sequence of that disease now observed, there is probably not a saturation of the

¹ Read before the Kennebec County Medical Association, May 22, 1879.

system with the malarial poison, but there is a permanent modification of the constitution, caused originally by the action of that poison. This state of the constitution is analogous to the diatheses, differing, however, in that it is acquired instead of congenital, hence more properly called a cachexia,¹ and the term "malarial cachexia" is adopted for use in this paper.

This name has itself been rather loosely employed, being sometimes applied to the active stage of malarial toxæmia; but wherever used in this paper, *malarial cachexia* means *an acquired modification of the human constitution, the remote consequence of malarial poisoning.*

As a person may be the subject of two diatheses, which mutually modify each other, so the malarial cachexia may be more or less modified by the diathesis of the individual; and, on the other hand, the nervous and bilious diatheses are intensified by this cachexia, especially the latter; but, aside from such modifications, the condition of the subjects of the malarial cachexia is about as follows:—

The skin is sallow, and the body presents the appearance of anæmia and emaciation, the weight being less than that normal to the individual. The tongue is invariably coated, generally with a thick, yellow fur; sometimes it is dry and fissured. There is often complaint of dyspepsia; generally sluggishness of the bowels; in some cases occasional attacks of diarrhoea. The liver is frequently enlarged and tender, and the discharge of bile in the stools evidently scanty. There is a general sense of malaise, or a feeling of being constantly tired; breathlessness on exertion; ability to do but a fractional part of the manual labor formerly possible; and the fatigue after labor is profound, and slowly recovered from. Want of energy is very common, and there are often hypochondria and irritability; all these without any apparent organic disease. In many cases there are frequent attacks of sick headache, or migraine, evidently the result of this cachexia, as they occur in persons who were not naturally disposed to them. The not unusual cases in which there is actual organic disease of the liver, kidneys, etc., the result of malarial poisoning, are beyond our proposed limits.

The malarial cachexia seems to be permanent; indeed, instead of showing a tendency to fade away, it appears to become more deeply impressed upon the constitution with the lapse of time. The subjects of this cachexia have a diminished power of resisting diseases, especially those incident to climatic and meteorological changes. They are particularly subject to catarrhal inflammations, as bronchitis, and to ephemeral fevers. As diseases are modified by the diathesis of the individual patient, so this acquired diathesis modifies them. Acute diseases are more apt to be ushered in with a chill than in other patients. Fevers,

¹ A cachexia is an acquired modification, as compared with a diathesis, which is inherited or congenital. Fothergill, American edition, page 278.

essential or symptomatic, are apt to be more markedly intermittent than is usual, and to vary much in their course, so that it is sometimes difficult to make a diagnosis. Convalescence, after illness, injury, or surgical operation, is slow and unsatisfactory. The above description is written entirely from my own observation. I have been unable to find, in the medical literature to which I have had access, any good account of the condition under consideration, although it is spoken of in English works as a very common state in those who have formerly resided in India, and doubtless descriptions of it exist. "Chronic malarial toxæmia" is well described; but that term, as we have already seen, is applied to the more immediate results of exposure to the influence of the paludal poison, as it occurred, for example, in the Union army, where it was a very common condition. For its bearing upon the ætiology of the malarial cachexia, we quote the following excellent description of "chronic malarial toxæmia": "The man is evidently out of health, and unfit for duty. He is said to be laboring under 'general debility.' There is a gradual loss of power, and fatigue comes on from slight exertion, with breathlessness and palpitation; the senses are dull and perverted; there are moroseness, despondency, and irritability; headache and neuralgic pains in the course of the fifth pair of nerves; lameness of the muscles of the back and legs is often complained of, after little exertion; occasionally there is more or less diminution of sensibility or motion of the lower extremities, which become enlarged, and the integument is shining, smooth, and pits upon pressure; the appetite is capricious and lessened, and there is constipation alternating with diarrhoea; the urine, at first copious, soon diminishes, with an increase of the urates and phosphates, and frequently of the oxalate of lime, and is loaded with epithelium; the bladder is irritable, with frequent micturition; the skin is harsh, dry, of a greenish-yellow hue, and bronzed in portions, and the hair has a dead look and feel. Persons in this condition are very liable to acute disorders, particularly pneumonia, which are constantly fatal."¹

In those who died at this stage, it was observed that the poison had manifested itself by anatomical changes in the liver, kidneys, spleen, stomach, intestines, and mesentery; and in the viscera drained by the portal circulation are always found the pathological sequences of the malarial poison. In the opinion of Lussana the poison of malarial fever is confined to the portal circulation. In those who did not die, it is a necessary conclusion that the same anatomical changes had taken place, only less in degree. After returning to non-malarial regions they recovered more or less imperfectly from the disease, but were left with some modification of the constitution, perhaps with some structural change in the organs affected, and will remain, for the rest of their lives,

¹ Clymer, in Aitken's Practice, American edition, vol. i., page 461.

subjects of the malarial cachexia. This is not a rare condition. In this little city [Augusta] the subjects of the malarial cachexia may be counted by the score, and all through the North many thousands must be thus affected.

Writers upon "chronic malarial poisoning" appear to take for granted, indeed most of them assert positively, that its subjects, if removed to non-malarial regions and treated with quinine and its *succedanea*, will perfectly recover. How far that is from the fact is shown by the experience of our Northern soldiers. In cases where the exposure to the paludal poison had been brief, and had eventuated in a regular attack of chills and fever, with speedy removal from the sources of the poison, a return to health took place; but in those chronically exposed to the poison, in whom, with or without intermittent fever paroxysms, the condition of "chronic malarial toxæmia" was set up, it would be safe to assert that a very minute percentage ever regained their former state of health. The future prospects of sufferers from the malarial cachexia are not encouraging. The condition shows no natural tendency to disappear but rather to become more intense, and medical treatment is at best only palliative. Their physical debility cripples their energies, and sadly interferes with their success in life; their diminished power of resisting disease makes them liable to fall an easy prey to various acute affections; their lowered vitality makes it-improbable that they will attain respectable longevity.

The general principles of treatment of persons laboring under the malarial cachexia may be derived from the description of their symptoms already given. There is nothing specific in the treatment, but the end in view must be the promotion of general nutrition and the palliation of morbid symptoms, so far as practicable. Perhaps the most important symptom that presents itself to our attention is the sluggishness of the abdominal viscera. Until that is relieved, it is useless to direct treatment to other conditions. And there are but two measures that seem effectual for the relief of this symptom, the use of mercurial cathartics and the employment of emetics. Whether mercury is a hepatic stimulant or not, it at least removes a large amount of bile from the intestines, and prevents its reabsorption. A blue pill and seidlitz powder, in these cases, is an excellent beginning of a course of treatment. Emetics are of perhaps even greater utility. For a knowledge of their value in this condition, I am indebted to a prominent physician of the South.¹ An emetic is well known to be a powerful stimulant of the portal circulation and of the viscera drained by it. Either of these measures will need to be occasionally repeated, and meanwhile the bowels must be kept free by proper diet or other means, among the best of which are podophyllin, in small doses, at night, saline and alka-

¹ J. D. Mitchell, M. D., of Jacksonville, Fla.

[August 7,

line laxatives, as the Carlsbad salt, or the following nearly equivalent combination taken early in the morning:—

| | | Gms. | |
|--|--|------|-------------|
| R ^y Sodii sulphatis | | 1 | 25 (gr. i.) |
| Sodii bicarb. | | 60 | (gr. x.) |

To be taken in a cup of warm water.

Tonics are manifestly called for by the symptoms, and the most valuable are quinine and arsenic; not because they are so-called specifics for malaria, but because they are the best tonics to the digestive organs, as well as to the system generally. They may be given singly or combined, and in pill form it is well to put with them some capsicum, which is considered a hepatic stimulant. The following pill has proved valuable in my experience:—

| | | Gms. | |
|--|--|-------|-----------------------|
| R ^y Quininæ sulphatis | | 12 | (gr. ij.) |
| Acidi arseniosi | | 002 | (gr. $\frac{1}{30}$) |
| Pulv. capsici | | 06 | (gr. i.) |
| Ext. taraxaci | | q. s. | |

To be taken before each meal.

The mineral acids, after eating, are of very great utility in these cases,—nitric, muriatic, or their combination, freely diluted.

The anæmia, which is a prominent symptom, would seem to call for iron, but it is not usually well borne, as is the case in other affections where the tongue is coated. Still, if the bowels are kept free, it will sometimes act well, and should be tried. Dialyzed iron is usually as well borne as any form; but sometimes the following combination will act better than any other:—

| | | Gms. | |
|--|----|------|----------|
| R ^y Ferri et potassii tart. | | 30 | (gr. v.) |
| Liquoris potassii arsenitis | | 12 | (m. ij.) |
| Potassii bicarb. | | 60 | (gr. x.) |
| Tinct. nucis vomicae | | 30 | (m. v.) |
| Aqua | ad | 4 | (3 i.) |

To be taken in a wineglassful of water, before eating.

Another valuable medicine, now recognized as a tonic, is corrosive sublimate, which may be given in doses of one to two milligrams (one sixtieth to one thirtieth grain), in a bitter tincture, and it may advantageously be alternated with the other tonics.

One peculiarity in the treatment of subjects of the malarial cachexia is that no form of medication appears to be beneficial for a long time, but frequent changes are necessary. Of course, many other measures will suggest themselves to the physician. Change of climate, a sea voyage, the hot springs, etc., are worthy of trial. Into the matter of general regimen it is not necessary to enter, although it is of prime importance, for it is governed by principles that are familiar. After all, our treatment will be, in one sense, a failure, for it seems probable that the condition of which we have treated is ineradicable. But, by

the resources of our art, we can get its subjects into, and keep them in, a much better condition than they would be without treatment.

There remains one thing more that the physician can do for these persons. He can advise them that, as "they do not possess a normal amount of health and strength," they should not "aspire to the habits and practices of perfect health, or of a by-past time," but should "moderate their aspirations," and "limit their demands upon themselves to their capacities," and thus "much better health and even length of days would be practicable."¹

In conclusion, I beg of you to judge of this paper as, what it pretends to be, not a dogmatic treatise upon the pathology or treatment of the malarial cachexia, but simply an attempt at a study of this condition from a clinical point of view, and a contribution from my own experience and observation.

A MEDICO-LEGAL CASE OF ABORTION, FOLLOWED BY CONVICTION OF THE ACCUSED ABORTIONIST.²

BY MEDICAL EXAMINER J. C. GLEASON, M. D., OF ROCKLAND.

IN the afternoon of June 8, 1878, in response to a telegram from Dr. J. W. Spooner, I went to Hingham to view the body of Mrs. Rebecca H., a colored cook, living in the family of Mrs. B., in the west part of the town. I found the body of Mrs. H. in ordinary dress, lying upon a bed in an attic chamber, used as the sleeping apartment of the house servants.

I learned that, in apparently perfect health, the woman had gone up to this room at about eleven A. M. with a Dr. Gilson, of Boston, she carrying up with her a basin of warm water; that in twenty-five to thirty minutes he came hurriedly down-stairs for brandy; that servants procured it for him, and, accompanying him up-stairs, found Mrs. H. upon the floor dead. A tub containing a small quantity of bloody water was seen near by. This the doctor directed one of the servants to throw away. Another of the servants had, at a previous visit of the doctor, lent him a common rubber syringe, which had not been returned to its owner. A bottle containing tincture of aloes and myrrh was found in the room, and in the kitchen below another containing a small quantity of fluid extract of cotton root. Further search discovered the syringe concealed in a bureau which stood near the bed. When found it was *still wet*. To the discharge pipe of this syringe a strange nozzle was affixed, which bore evidence of having been filed off, though somewhat roughly, and which was found a few days later to fit quite well a female catheter which the jailer at Plymouth discovered as it dropped

¹ Fothergill, Am. ed., page 25.

² Read before the Massachusetts Medico-Legal Society, June 10, 1879.

from its concealment upon the person of the prisoner at the time of his commitment, June 12th.

With the assistance of Dr. J. W. Spooner, I made an autopsy, with the following as the result, omitting, for the sake of brevity, any unnecessary details.

Time of autopsy, 9.30 P. M. to midnight, June 8, 1878. Place, the room above described.

The only external evidence of violence was fresh blood-staining of the under-clothing about the genital organs. The mouth of the womb was sufficiently dilated to admit easily the index finger. The unruptured membranes were felt through the neck of the organ by the examining finger. The uterus rose above the umbilicus to the height usual in the seventh month of pregnancy.

An incision was made from the neck to the pubes. The blood following this incision over the thorax was frothy. The heart and lungs were removed. When opened, the heart was found empty and healthy throughout; the vessels connected with it were also normal. The lungs were hyperæmic; color red; vessels distended; the air cells filled throughout with bloody serum. In the stomach, liver, spleen, intestines, and kidneys nothing abnormal was discovered.

The uterus, vagina, and bladder were removed together. The bladder, which was healthy, was first dissected off. I then opened the vagina along its anterior median line to the os uteri. The mucous membrane of its lower third was deeply reddened, and abraded in places. The mouth of the womb was patulous, reddened, and somewhat excoriated. The neck of the organ, two and a half centimetres (usual) in length, was dilated throughout sufficiently to admit the finger; its inner surface was reddened and free from all mucus. Following up the vaginal incision, I next opened the uterus to the fundus, carefully avoiding any injury to the membranes, which were as yet entire. On the right side, front and back of the organ, I found the membranes dissected up from the uterine wall to the extent of some two thirds to three fourths of their whole connection with the interior of the womb. The lining of the uterus, from which the membranes had been detached, was reddened, and scattered over its surface were seen a number of bright red loose clots of the size of a pea or bean. The placenta was involved in this separation, its right edge, to the depth of two and one half to two and three fourths centimetres, around one third to one half of its circumference, being detached, opening uterine sinuses. No clots protruded from these sinuses, nor was blood as a layer effused over any part of the interior of the organ. The remainder of the placenta and the membranes were normally adherent to the interior of the womb. The placenta was of usual size and appearance, attached to the fundus.

The amniotic sac contained a well-developed female foetus, thirty-

nine centimetres in length, and weighing fully one and one third kilograms, floating in a clear fluid, and having a fresh, healthy appearance. Presentation cephalic, with the back of the foetus to the abdomen of the mother. The ovaries were enlarged, bound posteriorly to the tissues by adhesions; when opened they were found to contain cysts and a corpus luteum.

The brain was anaemic; nothing unusual further was observed on careful examination of all its parts. The heart and kidneys were given on June 11th to Dr. R. H. Fitz for microscopic examination. The uterus and its appendages were transmitted at a later date to Dr. J. R. Chadwick.

On the 10th of June, an inquest by Justice Keith found Dr. Gilson guilty of attempted criminal abortion, causing the death of this woman. Two days later Gilson was indicted by the grand jury at Plymouth, and in default of bail was committed. The case came to trial in the superior court November 25, 1878. Pitman, judge; District Attorney French appearing for the State, Messrs. Pillsbury and Lord for the accused.

At the trial, servants testified to the fact of Mrs. H. taking both the aloes and myrrh and the cotton root, and to the various visits of the doctor upon her. The owner of the syringe identified the same, and testified that she had never before seen the strange nozzle. It was not in the box when she lent the syringe. To the defendant's excited efforts, in their presence, to resuscitate the woman; to the fact of his finally leaving her dead, telling the servants to say to any inquirers that Mrs. H. "died in a fit;" as well as to his direction to throw away the bloody water, there was ample testimony. It was in evidence that on the day before the death of Mrs. H. the doctor, in conversation with her mother and sister, to quiet their fears, told them that "he should not hurt Mrs. H. or kill her; she had only a slight trouble, and would be all right in a few days. She would not even have to go to bed."

As medical examiner, the writer detailed the manner and results of the autopsy, and testified that the appearances in the womb indicated that some force coming from without had with violence dissected up the membranes and edge of the placenta. Water or like fluid, alone or mixed with air, forcibly injected into the organ would cause the appearances seen at the autopsy. No evidence of disease was found, or cause of death other than the *uterine interference*. It is unsafe to inject any substance into the pregnant uterus. Air or gas, or any *liquid* containing the same, is especially liable to cause sudden death. Quite a number of fatal cases from this procedure have been reported of late. With this catheter [catheter and syringe shown] fitted to the filed nozzle which was found affixed to the syringe we should have an effective instrument for giving an intra-uterine douche. The catheter could be

readily passed, going up between the membranes and the uterine wall, the discharge pipe of the syringe then being connected by means of this prepared nozzle, and the instrument is complete. The autopsy showed conclusively that there had been no considerable loss of blood, as there were no clots protruding from the sinuses, nor was blood effused over any portion of the interior of the uterus beneath the detached membranes. The death was undoubtedly instantaneous. If we assume this syringe with catheter attached to have been the instrument used, *air* during its working (as will be shown later) could get in at the point of insertion of the nozzle (roughly filed) into the catheter, and also at the bulb, from some imperfection in the same.

Air forcibly injected into the uterus in the condition in which this was found might enter the circulation through the uterine sinuses, and cause instant death. In such cases the precise mechanism of the mode of death has been a matter of some dispute among pathologists. In the case of this woman, the post-mortem appearances indicated at least the very strong probability of death from air embolism. In the case of Mrs. H. it should have been easy to diagnose her pregnant condition at this period of its advancement. It was easily made out at the autopsy before opening the body. Pregnancy was uncomplicated, and the position of the foetus was favorable to hearing the sounds of the foetal heart.

The redness of the interior of the uterus, from which the membranes had been detached, was the result of the sudden and violent stripping off of the same from the lining beneath; it was of recent origin, as were also the excoriations.

In justifiable abortion the method of inducing uterine contractions by the use of the intra-uterine douche, known as Cohen's method, was advocated and practiced to some extent thirty years ago, but to-day is almost universally condemned on account of its danger. By the profession in general the use of such injections is now chiefly limited to cases of extreme flooding after delivery, and to cases of septicæmia. Physicians sometimes err in diagnosing pregnancy. In uncomplicated cases such mistakes are infrequent so late as the sixth or seventh month.

Dr. J. W. Spooner, who assisted at the autopsy, corroborated the testimony above given, stating it to be his opinion that death resulted from an interference within the pregnant womb. He believed it most probable that the occurrence of death was by air entering the uterine sinuses. He saw no evidence of any disease of the womb calling for treatment. Cotton root has a popular reputation as an abortive agent. Mrs. H. was from six to seven months advanced in pregnancy. He believed the foetus lived up to the time of the mother's death.

Dr. J. R. Chadwick testified that in his opinion the death of this woman was clearly attributable to interference with the pregnant womb.

In the organ itself there was no satisfactory evidence of the cause of death, but the conditions were such as to suggest the mode of its occurrence. The evidence derived from the autopsy shows that the membranes were not dissected up, as they usually are, by extravasations of blood behind them, as in ordinary cases of labor or spontaneous abortion, but something must have forced itself, or have been forced, between the uterine wall and the membranes. The evidence points to something from without. If from without, it must have been a fluid, and have been impelled forcibly through a tube which had previously been passed well up into the uterine cavity. This alone can explain the manner and extent of the separation of the membranes, involving as it did the edge of the placenta. The injection of a fluid into the uterine cavity is further made probable by the fact that no blood was found extravasated between the detached membranes and the uterine wall, and no clots were protruding from the open ends of the uterine walls, both of which would indisputably have been discovered had they not been washed away.

The separation of the after-birth is a laceration of the walls of the sinuses¹ so that the cavities are opened. These sinuses communicate directly, by large arteries and veins, with the blood-vessels of the mother's body. The manner and suddenness of the death can be explained on one only of three theories: that the woman died (1) of shock, (2) of embolism, (3) of the entrance of a large volume of air into the blood-vessels.

(1.) Although authorities state that death from shock may result from uterine and vaginal injections, yet no reported cases are known to witness in which this is clearly made out; hence we are led to believe that the term shock, which is now used in many cases where no demonstrable cause of death is found at the autopsy, has been applied in instances which the more scientific pathology of the present day would show to have been due to embolism, or air in the veins.

(2.) Embolism. Death from this cause is very rarely instantaneous; if it occurs, it must result from an arrest of a clot at or near the heart, and would be disclosed by careful autopsy. Besides, days would be required to allow any coagula that might be found in the uterine veins to become so disintegrated as to be taken up by the blood and carried forward toward the heart.

(3.) The entrance of air into the blood-vessels has been shown to have occurred in very many instances, and to have caused instant death. Many theories have been advanced to account for this result. I believe this to be the true explanation: The regurgitation of the blood in the large arteries, which takes place as soon as the impulse of the heart's contraction is removed, is competent to *close* the valves at the orifice of

¹ Demonstrated by a drawing shown in court.

such vessels. Now if air is substituted for blood, the valves do not close, and the circulation of the blood is arrested, however vigorously the heart may continue to beat. Instant death is the result. Further, in this instance the detachment of a portion of the placenta opened some of the uterine sinuses, and the autopsy showed that they were not plugged up by coagula. It only remains to show that air may have been injected into the womb together with the water.

If I take this syringe, which is alleged to have been used in this case, and place the orifice of the supply pipe in this basin of water, and the nozzle of the discharge pipe in this tumbler, it will be seen that numerous bubbles of air are constantly thrown out with the water upon every compression of the bulb. That this air enters through some defect in the bulb is made evident by the fact that the bubbles cease to appear the moment the entrance of air at this point is prevented by squeezing the bulb while it is under the surface of the water in the basin. Thus it appears that air must have been mixed with the water injected into the womb of this woman.

Again, take the catheter found upon the person of the accused, and the strange nozzle filed to fit the same; attach them to the same syringe, placing the end of the catheter beneath the water in the tumbler, and squeeze the bulb which is still under water so as to exclude any leakage of the bulb, and a perfect effervescence of fine bubbles will be seen to take place in the water in the tumbler. This air finds entrance between the nozzle and the catheter. The missing link in the evidence is thus supplied; for it is clear that if water through this syringe and catheter was injected into this woman's womb, air must have entered with it in large quantities.

The frothy blood in the thoracic integument so soon after death tends to confirm the above theory of the cause of death, but would not be of itself conclusive proof.

At the sixth or seventh month of pregnancy a physician of ordinary skill ought to diagnose an uncomplicated pregnancy, especially if his suspicions had been aroused. In this case the finger could pass through the neck of the womb and touch the membranes and head of the child, as was done by those who made the autopsy. Intra-uterine injections are especially dangerous in pregnancy. I am not aware that cotton root is used by the regular profession. Air embolism is rare. Had it occurred in any of the vessels of the brain death would not have been instantaneous. Physicians are liable to make mistakes in complicated or obscure cases. If they have done so they are not usually allowed to forget the fact.

Dr. J. B. Brewster, from the testimony of Drs. Gleason and Spooner, believed that the death of this woman was the result of the use of the intra-uterine douche. The most probable theory of the manner of

death is the entrance of air into the uterine sinuses. He corroborated the testimony of the medical examiner as to the cause of the deep redness of the uterine surface from which the membranes had been detached, and also as to the cause of the vaginal excoriations or abrasions. He believed intra-uterine injections in pregnancy were dangerous. He also believed that pregnancy in this instance was easy of diagnosis. Cotton root as an emmenagogue is not generally used by the profession.

Dr. W. B. C. Fifield testified that, in view of the facts developed by the autopsy, it was his opinion that this death was caused by an interference with the process of gestation in the pregnant woman. The manner he believed to be by air embolism. The mixture of aloes and myrrh is a warm, stimulating purgative, with a limited use as an emmenagogue. As such it produces a flow of blood to the uterus, which in pregnancy sometimes causes abortion.

Dr. R. H. Fitz testified that he examined microscopically the heart and kidneys given him by the medical examiner, and found in them no evidence of disease. He corroborated the testimony of the other medical witnesses as to the danger of injections of water and air into the womb in pregnancy, and as to the improbability that this woman's death was due to embolism proper. He did not think that in any case, as the result of the intra-uterine douche, a clot could be instantaneously formed and carried into the circulation and cause immediate death. In case of sudden death from embolism, careful autopsy would reveal the embolus. If large, it would be found near the heart. In case of air injected into the uterine sinuses, it would be found in the lungs and right side of the heart. A small amount, causing death, would produce that result gradually; a large amount *at once*. To find the air "it would not be absolutely necessary to examine the lungs, for in certain cases the examination of the heart suffices."

Drs. G. F. Bigelow and J. E. Graves were called by the defense; they testified to the fact that physicians are liable to be deceived in diagnosing pregnancy. Mistakes in this direction have been made by men of all degrees of skill and experience. Cases of suppression of the menses have been known to continue for months, to be attended with abdominal enlargement, and sometimes accompanied by local discharges. In case of a healthy woman in the seventh month of pregnancy, her physician would be likely to know her condition. Both these witnesses concurred in the opinion of the medical examiner and others as to the cause of death.

The story of the prisoner was in some directions not only inconsistent, but highly improbable. Though he professed to be a regular graduate in medicine, and that he had had obstetric experience, admitting that this woman had been under observation during the last five months of

her life, and that he had made what he called "manual examinations" with the object to determine this point, he nevertheless alleged that he was *unable* to make out her pregnant condition. Accordingly, at first, he had been treating her for suppression of the menses, and later for a "uterine leucorrhœa," as he termed it. He admitted having been to Hingham on three several days during the four weeks just previous to June 8th, at each visit administering a vaginal douche; while on that day, the day of the death of the woman, with the catheter and syringe, connected by means of the nozzle prepared for the purpose, he gave an intra-uterine douche, at length giving up to Mrs. H. the instrument, which she herself applied, as he walked away from her bed toward the window. While using it she fell back, and instantly expired.

After a review of the testimony by counsel, the case was submitted to the jury, who in an hour returned a verdict of guilty. The defendant's sentence was six years' imprisonment at Concord.

RECENT PROGRESS IN THE TREATMENT OF DISEASES OF THE THROAT.

BY F. I. KNIGHT, M. D.

The American Laryngological Association. — One of the best evidences of progress in the treatment of throat diseases is the recent formation in this country of a national association for the promotion of knowledge in all that relates to diseases of the upper air-passages. This is the first national association devoted exclusively to laryngology and allied subjects in the world, though some European societies have *sections* devoted exclusively to it.

A few gentlemen met at Buffalo last year for organization, but the first annual meeting was held this year, June 10th, 11th, and 12th, at New York. On the 10th, after a brief address of welcome by Dr. Lefferts, papers were read by Dr. J. Solis Cohen, of Philadelphia, on An Analysis of the Lines of Muscular Force controlling the Glottis, illustrated by an improvement of Oertel's model, and patients suffering from laryngeal paralysis; on Retropharyngeal Sarcoma, by Dr. F. I. Knight, of Boston; on Nasal Catarrh, by Dr. T. F. Rumbold, of St. Louis; on A Perfected Sponge-Carrier, by Dr. L. Elsberg, of New York; on Chorea Laryngealis, by Dr. G. M. Lefferts, of New York; and on Naso-Pharyngeal Polypus, with Demonstration of Cases, by Dr. R. P. Lincoln, of New York.

On the evening of the 10th, Dr. Louis Elsberg, president of the association, very essentially and most charmingly aided by his beautiful young wife, gave an elegant reception to the association at his residence on Fifth Avenue, distinguished members of the medical profession and

others being invited to meet it. Among the ornaments of the supper-table, the confectioner showed remarkable skill in designs of Tobold's laryngoscope, a large larynx, and Elsberg's perfected sponge-carrier. Somehow, the medical man is never supposed to be susceptible to unpleasant suggestions of his profession !

On the 11th of June the president opened with his annual address, giving a very complete and very interesting history of throat diseases, and instruction in regard to them in this country. Then followed on this and the next day papers by Dr. E. Cutter, of Cambridge, on the Larynx and Uterus; Dr. Carl Seiler, of Philadelphia, *Researches on the Anatomy of the Vocal Cord*; Dr. J. H. Hartman, of Baltimore, on *Laryngeal Haemorrhage*; Dr. F. H. Bosworth, of New York, on a *Case of Primary Tubercular Ulceration of the Pharynx* followed by *Laryngeal and Pulmonary Tuberculosis*; and by Dr. E. L. Shurley, of Detroit, on the *Galvano-Cautery in the Treatment of the Nose and Pharynx*, with exhibition of instrument. Other papers were read by title, and will appear in the transactions of the society.

On the evening of the 11th, the association dined at Delmonico's, by invitation of the members residing in New York. The meeting in every respect was a success, and we think every man felt repaid for coming.

A committee on nomenclature was appointed to report next year. The committee on nomination of officers recommended that the officers elected at the preliminary meeting at Buffalo should be re-elected for the ensuing year, with the understanding that no precedent was thereby established. So the officers of the society for the ensuing year are: president, Dr. Louis Elsberg, of New York; vice-president, Dr. F. H. Davis, of Chicago; secretary and treasurer, Dr. G. M. Lefferts, of New York. The office of librarian was also created, to which Dr. F. H. Bosworth, of New York, was elected.

The transactions of the association, including the papers read and discussions upon them, will appear in the *St. Louis Medical and Surgical Journal*, and afterwards appear as a volume of reprint.

Incarceration of the Epiglottis in Fatal Cases of Spasm of the Larynx in Children.—Dr. J. Solis Cohen¹ directs attention to this mechanical factor in infantile spasm of the larynx, which was the immediate cause of death in two cases under his care. In one case an intense paroxysm occurred in his presence, and on putting his finger deep into the child's throat he felt the epiglottis so forcibly drawn by the spasmotic action of the aryteno-epiglottic muscles that its free edge had become wedged between the posterior face of the larynx and the wall of the pharynx, occluding the larynx completely. Carrying the finger to the left side of the larynx, he found it comparatively easy to free the epiglottis from its incarcerated position, and with the ensuing deep inspiration of air

¹ *The Medical and Surgical Reporter*, March 16, 1878.

the impending asphyxia was averted. The nature of the difficulty was explained to the mother, who was instructed in the manipulation necessary to overcome it; but the child finally died in a paroxysm. In the second case tracheotomy was unfortunately deferred twenty-four hours, in order to test the efficacy of large doses of bromide of potassium; and shortly before the time fixed for the visit the child died in a paroxysm, which the mother was unable to overcome by manipulation, although she had previously succeeded in elevating the epiglottis in several paroxysms. Dr. Cohen therefore is inclined to believe that the spasm of laryngismus affects the aryteno-epiglottic muscles, in some instances at least, as well as those muscles which close the glottis, and that the incarceration of the epiglottis continuing after the relaxation of the spasm may be the immediate cause of death. In undoubted cases of this kind tracheotomy may be absolutely indicated as necessary to arrest asphyxia in a recurring paroxysm of spasm.

Syphilis of the Larynx.—Dr. W. Macneill Whistler¹ remarks that there can be no doubt that certain phenomena of a more superficial nature do occur in the larynx in the earlier periods of syphilis, while deeper and more destructive ones mark a more advanced stage; and this with sufficient constancy to justify certain types being grouped together to represent certain periods. In the first few months after infection the lesions found by Whistler in eighty-eight cases were:—

(1.) Catarrhal congestions simulating those arising from ordinary causes. (2.) Congestions accompanied by diffuse redness and swelling. (3.) Mucous patches of various types. (4.) More chronic inflammations, occupying as it were the period of transition, the signs of which are diffuse redness, thickening, and ragged ulceration, especially of the vocal cords.

The essential points which distinguish syphilitic catarrhs from others associated with diffuse redness and swelling are these:—

(1.) The redness is often more limited in its distribution, and it is not so bright. It is often rosy in the early stages, becoming darker in cases of longer standing. It is not vivid unless accidentally inflamed. (2.) They are accompanied by a general puffiness instead of great swelling. (3.) There are no very acute symptoms. Dr. Whistler's observations have thoroughly convinced him that mucous patches occur in the larynx oftener than is allowed by some authorities. He found them in twenty-four out of eighty-eight cases of secondary syphilis, while he did not find them in any case of eighty-two patients who were in the transition or tertiary period of the disease, a fact which he thinks is sufficient to refute the theory that *all* superficial lesions of the larynx may occur indiscriminately at any stage of the disease. In the twenty-four cases the lapse of time between infection and the date of their

¹ *Medical Times and Gazette*, 1878, vol. ii. pp. 343, 372, 405, 535, 650.

occurrence was as follows: in the first month and a half, three cases; at two months, one case; at four months, four cases; at five months, one case; in the sixth month, four cases; one case at eight months; two at ten months; and two at the end of one year. In six cases the precise time after infection was not ascertained. The mucous patches were upon the epiglottis in ten cases, and the vocal cords were also the seat of these lesions in ten cases. One was on the glosso-epiglottic fold. They were upon the arytenoids in four cases, twice upon the inter-arytenoid fold, and twice upon the ventricular bands.

Those which most closely resemble the opalescent patches which are found upon the pillars of the fauces, on the soft palate, and tonsils occur most frequently on the epiglottis and its folds, and on the arytenoids. They affect more often the upper surface of the free border of the epiglottis. They are seen there as small, oval, or roundish elevations, rising gradually towards their centre, about the size of a pin's head or a shot, of a dull whitish-gray color, not unlike the stain of nitrate of silver. On the arytenoids there are two forms. When situated on the posterior surface they are still flat, opalescent patches, but larger in size. None of these attain any degree of prominence unless they become irritated. Whistler has seen them then get thickened, and stand out as red papules with an ulcerated surface, like hypertrophied patches in other parts of the body. These true mucous *papules*, or condylomata, occur also apparently without irritation, and from the very first upon the anterior surface and upper border of the inter-arytenoid fold, upon the anterior surface of the arytenoids, and upon the ventricular bands just in front of the arytenoids. When they occur in these situations they appear as circumscribed elevations or papules, firm, grayish, or reddish-gray. The summit of these papules is covered with a scanty secretion like the others mentioned. On the vocal cords they occur as small opalescent bodies, more or less elevated, especially when on the edges, or arranged in lines when on the upper surface. These gray streaks stand out upon the reddened cord, giving to it a mottled look, and from their form they might be called *linear patches of the cords*. Another form that they have when in this situation is a circular erosion. The color of this is red, and contrasts strongly with the whiter surface. Sometimes it is gray with a red, excoriated-looking centre. They are all slightly above the level of the surrounding membrane. Sometimes they are prominent on their borders with a depressed centre.

In addition to constitutional treatment Whistler advises the local application of nitrate of silver, sulphate of copper, vapor of benzoin, or spray of chloride of zinc. He then describes what he calls the "relapsing ulcerative laryngitis of the early and intermediate periods." The ulcers are deeper, with ragged and thickened edges; are small, irregular in shape, and often multiple; are, compared to a later stage, super-

ficial, and unaccompanied by the necrosis and perichondritis produced by the burrowing ulcer of a later stage; there is much thickening, and often warty growth; are chronic and relapsing.

Iodoform Pastilles. — Dr. Whistler¹ recommends pastilles containing two grains each of iodoform made with a gelatine base, which he prefers to all others. The formula for this base is refined gelatine, one, glycerine, two and one half, flavored water, two and one half, liquid cochineal *q. s.*, to be made into a paste. The advantage of this over the ordinary lozenge is that it is flexible, and perfectly unirritating to the mouth, the gelatine affords more relief to dryness of the mucous membrane than other vehicles, and they can be made by any druggist, as no drying oven or special apparatus is necessary.

Laryngeal Consumption. — Heinze² contributes his observations made in the autopsy-room of the University of Leipzig for the purpose of contributing to the solution of the question whether tuberculosis of the mucous membrane of the larynx and trachea is identical with consumption of these parts, or whether the latter disease is but a consequence and further development of catarrhal and inflammatory processes within the air-passages. The author has made very careful statistics, and very accurate microscopical examinations of a large number of specimens of this disease, his observations being based on not less than four hundred and seventy-five cases.

Ulcerations within the larynx were observed in 30.6 per cent., within the trachea in 8.0 per cent. of all the cases of phthisis observed. Men are more frequently attacked than women. Ulcerations of larynx and trachea in pulmonary phthisis are most frequently met with in patients between twenty-one and thirty years of age. They are extremely rare in childhood.

In ninety-four per cent. of all the cases examined there were either tubercular processes in larynx and trachea, or in either of them alone; in sixty only the tubercular origin of the ulcer could not be demonstrated. Tubercular infiltration was met with in 52.5 per cent. of all cases examined, most frequently on the ventricular bands and ary-epiglottic folds. Tubercular ulcers were found most frequently on the vocal cords.

Heinze concludes from his observations that, though there may be found non-tubercular ulcers in cases of pulmonary phthisis, their existence is quite accidental and unimportant, whilst the *large destructions of the larynx which hitherto have been called with the common name of "laryngeal consumption," are exclusively due to tuberculosis of the mucous membrane of the larynx.*

In the last chapter, which treats of the Pathogenesis and *Aetiology* of the disease, the author comes to the following conclusions: —

¹ Medical Times and Gazette, 1878, vol. ii., No. 1483.

² Brochure, Leipzig, 1879. London Medical Record, January 15, 1879.

- (1.) A primary tuberculosis of the larynx most probably does not exist.
- (2.) It is not possible to conclude from the laryngoscopic appearance of an ulcer alone whether its nature is tubercular or not.
- (3.) A cure of the laryngeal tuberculosis will most probably never be obtained.

(To be concluded.)

RECORDS OF THE BOSTON SOCIETY OF MEDICAL SCIENCES, NOVEMBER, 1878, TO MAY, 1879.

JAMES J. PUTNAM, M. D., SECRETARY.

TUESDAY, NOVEMBER 26, 1878. DR. BOWDITCH showed two pieces of apparatus for *plethysmographic measurements* devised by him for use in certain experiments upon the circulation of the blood in the lungs, to be described elsewhere more at length.

The first consisted of a glass test-tube suspended from a coiled spiral spring, so adjusted that the tube would rise or fall at the same rate that the level of fluid poured into or withdrawn from it rose or fell, with relation to the tube itself. In this way the level of the fluid could be maintained constant with regard to other pieces of apparatus outside, the advantage of which in plethysmographic experiments is apparent. This method was said to be simpler than those of Mosso and Von Basch, which were also explained.

The second piece of apparatus consisted of a small bucket suspended from a spiral spring and armed with a projecting bit of metallic tinsel foil which bore against a brass rod, threaded with an extremely fine thread, the depressions of which were filled up with sealing-wax, thus leaving a number of parallel fine lines exposed. Both the rod and the tinsel formed part of an electric circuit, which was closed whenever the pail, in descending from the weight of fluid poured into it, brought the tinsel into contact with one of these exposed lines, and the rapidity of the descent could thus be accurately noted on a revolving cylinder. The entire apparatus could be inclosed in a glass jar and exposed to the same pressure with the lungs whose changes of vascular capacity it was proposed to measure.

DR. FITZ showed some *microscopic specimens from the medulla oblongata of a patient who died of hydrophobia* at the Massachusetts General Hospital. The specimen showed accumulations of lymphoid cells in little masses resembling those described by Dr. Gowers, of London, and, in greater number than these, lines of similar cells occupying the perivascular sheaths.

DR. FLETCHER, of Pepperell, showed a *microtome* of his own invention, a full description of which will be published in the Boston Medical and Surgical Journal.¹

DR. WOOD showed a *specimen of cloth which he said contained a large amount of arsenic*, the use of which had given rise to severe symptoms of arsenical poisoning,—inflammation about the nose and mouth, swelling of the lids, etc. The material was “Foulard cambric” of a light navy-blue color.

¹ Vide vol. c., page 253.

DR. WOOD was unable to answer DR. LINCOLN's question as to whether the dyes used to color the covers of certain journals, especially *Knapp's Archives*, contain arsenic.

DR. BOLLES showed a specimen of *guarana in the natural state*, as well as a sort of rasp, supposed to be made from the tongue of some one of the larger fishes, with which the natives file off any desired dose.

TUESDAY, DECEMBER 17, 1878. DR. GARLAND read a paper on *pharyngeal respiration*, describing some experiments recently made by Professor Bowditch and himself at the physiological laboratory of the Harvard Medical School.

In the first instance, it had been discovered by MR. WALKER, the assistant in the laboratory, during the course of some other experiments which had necessitated the complete severance of a dog's trachea and the entire removal of the upper part from connections with the chest, that air still passed in and out of the mouth. Careful examination confirmed this observation, as well as the notion that these phenomena were due to rhythmical changes in the capacity of the pharynx. Investigations under proper precautions, with the aid of several MAREY'S tambours, showed that these changes attend each act of respiration. On comparing the time of the pharyngeal movements with that of the movements of the chest, it was found that —

(1.) The pharyngeal *expansion* precedes pulmonary inspiration, though it may not be completed before inspiration begins. It coincides with the previous expiration, or with the succeeding respiratory pause, according to the type of breathing at the time.

(2.) The pharyngeal *contraction*, in the majority of cases, coincides mainly with inspiration, and seems to be essentially an inspiratory phenomenon.

DR. GARLAND then discussed the analogy between these movements of the pharynx of the dog and the so-called throat respiration of the frog, illustrated in a recent article by PROFESSOR MARTIN, of Baltimore. DR. GARLAND was not convinced that these movements in the dog subserve any useful purpose, but they are of great interest from a biological stand-point as revealing a new and unsuspected relationship between the two types of "throat" and thoracic respiration. The details of the experiments reported will be published at an early date in *Foster's Journal of Physiology*.

In reply to DR. EDES, DR. GARLAND said that the amount of air entering was not always so very small. The motion of the lever of the MAREY drums was sometimes so great that it was thrown off the paper. He also said that PROFESSOR WYMAN had shown, though by crude experiments, that movements go on in the pharynx, though their amount was not measured.

DR. BOWDITCH said that the apparently antagonistic movements may in fact indicate a sort of peristalsis, which embraces the movements of both pharynx and chest.

DR. PUTNAM showed a modified pendulum myograph devised by DR. BOWDITCH and himself. Its main peculiarities were that the pendulum itself consisted of a sheet of plate-glass, and that both this and the stage bearing various sliding connections could be moved up and down by a rack and pinion, so that the position of slips of smoked paper with relation to the writing pens

playing in front could be altered. The use of this arrangement of course rendered it necessary that the cards written upon should be ruled with lines converging towards the centre of motion of the pendulum, and cards of this kind had therefore been lithographed, and the spaces between the lines corresponded to .01" of time.

The only experiments tried hitherto with this apparatus had been as to the reliability of Marey's drum for use in time experiments, and on the time of the tendon-reflex.

The reliability of the drum had been found to be very great, the delay with the combinations employed amounting to about .01".

With regard to the "tendon-reflex," a shorter time had been found to be occupied, in certain cases, than any hitherto reported, amounting sometimes to not more than .02", after withdrawal of the latent period of the muscular contraction. In view of the extreme shortness of this period, which seems almost to preclude the idea that the reflex is of spinal origin, Dr. Putnam suggested that both the rival views that have been advanced may be correct, the beginning of the reflex contraction being perhaps due to direct excitation of the muscles, or possibly to excitation of the spinal ganglia, as maintained by Burckhardt, and the rest of it to spinal influence.

TUESDAY, JANUARY 25, 1879. DR. AMORY read a paper on *the haematinic properties of dialysed iron*, to be published elsewhere at length.¹

TUESDAY, FEBRUARY 18, 1879. DR. BOWDITCH read a paper upon *the influence of respiration upon the pulmonary circulation*, which is reserved for publication elsewhere.²

In reply to Dr. James, Dr. Bowditch said that he did not mean to assert that in living animals exactly the same phenomena occurred as he had described. On the contrary, he presumed that in fact more blood instead of less passes through the lungs at the first moment of inspiration.

In reply to Dr. Wadsworth, Dr. Bowditch said that a notable amount of blood was lost by imbibition in passing through the lung, in experiments made after the death of the animal, as these were.

In reply to Dr. Jeffries, Dr. Bowditch stated that in life the rate of passage of the blood under various circumstances was probably modified somewhat by the action of vaso-motor nerves, but not so much as to reverse the observed results. After an hour or so the lungs became quite oedematous, and soon useless. No attempt was made to keep the jar at the temperature of the body.

DR. JAMES spoke briefly of some investigations as to *the function of the membrana tympani in informing us as to our position with regard to objects around us*. After referring to the great power of drawing conclusions of this sort which has been claimed for the blind, and which had been traced to the skin of the face, having been said to be impaired by veiling the head, he gave an account of experiments made on some of the inmates of the Perkins Institution for the Blind at South Boston, as well as upon healthy persons. By them he had traced this faculty almost exclusively to the ear, and

¹ Vide Boston Medical and Surgical Journal, April 3, 1879.

² Vide Foster's Journal of Physiology.

had found that absolute closure of the external meatus by cotton and putty annulled it.

The feeling by which this recognition of objects is brought about is a minimal degree of that produced by a hollow shell held over the ear, but is so slight that it is not at first recognized as sound, or even referred to the ear at all. The most plausible theory with regard to the matter is that when a body is held near the ear the waves of air which are continually reaching it from various sources are suddenly changed in their force, and a new system of waves set in motion.

DR. BOWDITCH suggested that one source of the ever-present waves to which Dr. James has alluded might be the various movements of the heart, blood, etc., taking place within the body itself.

DRS. CUTLER, BOWDITCH, JEFFRIES, and others spoke of having noticed to a marked degree in themselves this power of telling whether a door is open or shut, in the dark, and Dr. Cutler had noticed a sensation of tension in the ear in connection with the effort to exercise this faculty.

MR. MINOT adduced a fact to show that this faculty may also be possessed to a considerable degree by the skin of the face.

DR. JEFFRIES showed *the colored prisms proposed by Delbaeu to correct color-blindness.* The effect in helping to distinguish red from green was but little greater than that of examining them by gas-light. He did not think they could prove of practical use.

TUESDAY, MARCH 18, 1879. DR. DWIGHT read a paper upon the *structure and development of the torcular Herophili.* It had been found by Rüdinger that the longitudinal sinus does not stop with the torcular, but is continued onward, turning sometimes to the right, sometimes to the left, the straight sinus taking the opposite course, and being likewise continued through the torcular. The object of the present investigation had been to study these questions from the developmental point of view, since it is well known that some of the asymmetries met with in adult animals are not present in the embryo.

The examination of a number of foetuses had, however, shown that at a very early age there is a want of symmetry in the torcular, its cavity being separated by a more or less complete partition into two unequal parts. Of these, the right is commonly the larger, but it is in continuation sometimes of the superior longitudinal sinus, sometimes of the straight sinus. The probable cause of this condition was traced back to the changes in the venous arrangement which precede the passage of the blood through the internal jugular. The escape of the blood from the head is at this period probably easier on the right side than on the left.

In reply to Dr. Green, Dr. Dwight said that the degree of the asymmetry is about the same in adults as in the embryo; also, that he could not agree with Rüdinger that the complete separation of the two parts of the torcular is common in the adult, both this and perfect symmetry being about equally rare.

The appearances in the skull which are mainly relied upon by Rüdinger do not always correspond with the condition of the sinuses themselves.

DR. GREEN asked with regard to the constancy of position of the little emissary vein with relation to the torcular, and spoke of a case where caries of the middle ear had led, probably, to inflammation of the lateral sinus, and finally to the formation of a small abscess beneath the periosteum and close to the bone, on the outside of the skull over the occipital protuberance, which had presumably found its way to the surface by means of this little vessel.

TUESDAY, APRIL 15, 1879. DR. WARREN showed a number of microscopic specimens from a tumor of the roof of the mouth, which he stated resembled both the *cylindroma* and the *plexiform sarcoma*, as described by Billroth. The tumor was of the size of a Messina orange, and had grown steadily during seven years. The mucous membrane over it was healthy. At the operation it was peeled off without difficulty by the finger. It had been hardened in Müller's fluid. The typical portions of the growth were characterized by the presence of a gelatinous matrix traversed by delicate bands made up in part of columnar masses of cells. Other parts were almost wholly fibrous, with a few cells scattered here and there, while others, again, were wholly cellular. The cells sometimes resembled epithelium, but were sometimes round. Dr. Warren did not, however, consider the growth as distinctly epithelial or myxo-adenomatous.

DR. FITZ thought the structure not distinguishable from epithelial growth, with partial gelatinous degeneration.

TUESDAY, MAY 20, 1879. DR. SABINE showed a microscopic specimen of *acute miliary tuberculosis of the uterine muscular tissue*, a disease which has been said never to occur, though a more chronic form is not rare. The uterus had been found considerably enlarged, and a miscarriage had taken place four weeks before death. Although the case was one of so-called general tuberculosis, no tubercles had been found in the liver, in spite of careful searching. Many of the tubercles had begun to undergo cheesy degeneration. Some of them contained giant cells.

ELLIS'S DISEASES OF CHILDREN.¹

THE American reprint of the second edition, which appeared in 1873, was published by Lindsay and Blakiston, and received at that time a review in this journal. The present (American) edition comes in an enlarged form, and from different publishers. The text shows evidences in many places of revision on the part of the author; and many additions have also been made, noticeable particularly in the portions devoted to the treatment of disease.

In Chapter I., General Observations on Management and Diet, there are some additions on the subject of artificial food. Condensed milk is mentioned for the first time, to which his own experience is decidedly favorable. Of

¹ *Practical Manual of the Diseases of Children.* By EDWARD ELLIS, M. D., Late Senior Physician to the Samaritan Hospital for Women, and formerly Physician's Assistant to the University College Hospital. (London Rep.) Third Edition. New York: William Wood & Co., 27 Great Jones St. 1879.

Liebig's food he manifests a great dislike, and "heartily indorses Dr. Chambers' witty condemnation, who says, "Sensible people will be content to leave the recipe for some coming race who may prefer art to nature." In Chapter X., on Dietary, at the end of the book (new in this edition), the author writes again on this subject as follows: "Laputa never devised anything more preposterous than Liebig's food for infants. Dr. Chambers made this remark, and, despite the praise of other high authorities, I agree with Dr. Chambers. Nevertheless, let those use it who admire it." Whether these conclusions are based upon experience, or otherwise, it is not said.

Those who are familiar with the teachings of the more modern and progressive school of dermatology will find much to object to in many of the author's views as expressed in Chapter III., on Skin Diseases.

Erythema, for instance (red gum being wrongly given as a synonym), is classed amongst the exanthemata, as is also urticaria. In the section on Eczema a "syphilitic variety" is described, which, it is hardly necessary to say, does not exist according to the best authorities. The author continues to define impetigo as "a suppurative inflammation of the hair follicle," and as contagious. We find also the commonest site of prurigo stated to be the neck and shoulders. Under the head of pityriasis several very different processes are evidently confounded; and as the article is very brief we will quote it in full:—

"Pityriasis (dandruff) is chronic inflammation of the skin, attended with itching and abundant desquamation of small scales or scurf. The head is the part commonly affected. If the disease becomes chronic the hair gets thin. Pityriasis capitis is not uncommon in newly born infants; there is no constitutional disturbance. Pityriasis rubra and versicolor are varieties, chiefly marked by their color, the former red, the latter yellowish-brown."

Judged by the same standard, the author's description of the differential symptoms of sudamina and miliaria is an equally confused one.

The statement in a former edition that "eczema is inflammation of the sweat follicle" has been modified by the addition of "according to some authors, and catarrhal inflammation according to others." The author's assertion that "local applications are of little service in psoriasis" differs from that of other authorities on the subject.

The use of salicin and salicylic acid in the treatment of rheumatism, and of the "cooled bath" in the treatment of scarlet fever, typhoid fever, and other febrile diseases, receives attention in this edition. The use of the wet sheet and the internal administration of sulpho-carbolate of sodium, as a prophylactic in scarlet fever, are also mentioned for the first time. The author thinks that this last remedy deserves further investigation.

In the section on Diphtheria, the description of the anatomical character of the "exudative matter" differs somewhat from that given in former editions, but it cannot be regarded as any improvement. It consists, according to the author, "of epithelial and granular cells with granules of fat and protein. Sometimes fibres and vegetable growths are present."

There is evidence of a full appreciation of stringent rules of disinfection in this disease; but the advice that "all persons passing from the sick to the

healthy should fumigate themselves and their clothes with sulphur vapor" would subject physicians in attendance upon such cases to a rather severe ordeal. The author's suggestion of burning sulphur every four hours on live coals or a hot shovel, for half an hour at a time, would be considered by many as an equally undesirable proceeding to carry out in the sick room. The use of a continuous nasal douche, recommended in cases of discharge from the nostrils, would, certainly in many instances, be accompanied by insurmountable difficulties. "A glass syringe," the author writes, "is merely playing at it." The author advises "carbolic acid, just made fluid with a little water, or, still better, with glycerine," as "the best local application we possess; and it is hard to overestimate its value." The next best remedy he considers to be the strong tincture of iodine topically applied. The use in a similar manner of argent. nitrat. (Θ i. ad agave 3*i.*) is also highly spoken of. Such powerful local applications have been for the most part discarded in the treatment of diphtheria; at least, we do not find them sanctioned in the later writings of the best authorities.

Among the diseases not to be confounded with diphtheria, we find included "erysipelas of the throat (a rare disease), from which," he writes, "the diagnosis is not easy; but in erysipelas there will be more puffiness and swelling of the throat and surrounding parts, which are besides often oedematous; the exudation is less membraniform, and the tongue dark brown or black, dry, and deeply fissured."

The author's views on the use of bleeding (general and local), antimony, and blisters show evidence of a radical change, when compared with those expressed in the previous edition. This is particularly noticeable in the treatment of the acute inflammatory diseases of the respiratory organs. Whereas they then formed a frequent feature in the therapeutics of those diseases, he may now be said to have completely abandoned their use. In the section on Pneumonia, he writes, "For my own part, I can only say that for more than three years I have never used leech nor blister to a sick child, and I think three leeches and six blisters represent all I have to answer for in adults during the same period." This change has necessarily entailed a revision of the treatment of several diseases. The author's use of calomel has also become much modified and restricted. In the place of the above-mentioned "antiphlogistics" we find the tincture of aconite recommended very much more extensively by him than before; and the power of cutting short the disease is attributed to it in acute tonsillitis, it being stated, on the authority of Dr. Ringer, that "when caught at the commencement it rarely fails to succumb in twenty-four or forty-eight hours." In the treatment of catarrhal pharyngitis also, he writes, "Tincture of aconite, in drop doses, at two-hour intervals, internally, and a wet compress externally, will as a rule speedily cure sore throat." In the treatment of tubercle of the brain and inflammations of the spinal cord, the use of setons, issues, and tartar-emetic ointment is omitted in the present edition. In the section on Pertussis, we are told that there is increased dullness on percussion at both bases. Upon what grounds such a change in the physical signs is to be expected the reader is left to infer for himself. The difference in the size of the two sides of the chest, after the absorption of a large pleuritic effusion, is still attributed by the author to the hypertrophy of

the healthy lung. In the section on Pneumonia we find given, as one of the signs by which this disease is to be diagnosticated from bronchitis, "the comparative freedom of the breathing,— that is, the breathing being less labored in pneumonia, though rapid." In a majority of cases, certainly, such a rule would not hold good.

There are but few changes to chronicle in the chapter on Diseases of the Food Passages and Abdomen. The diseases of the stomach are included under the head of dyspepsia, gastritis, subacute gastritis, and gastric catarrh; those of the intestines under diarrhoea, enteritis, "*pur et simple*," and dysentery. The description of symptoms under these different heads is compressed into a few lines, and is not calculated to impress the reader with the practicability of always distinguishing one form from the other. A more generous space is devoted to the treatment. There are some remedies recommended in this chapter for the first time, among which we will cite the use of ipecac in dysentery, and of liquor hydrargyri per chloridi and Fowler's solution in certain forms of diarrhoea in children (the last two again on the authority of Dr. Ringer).

The author speaks in high terms of the favorable results obtained by him in a quite large experience with so-called "eclectic remedies." In the chapter on Tubercular Meningitis, he writes:—

"In a disease where treatment of all kinds is so very unsatisfactory, I would advocate a further trial of the tinctures of gelsemin and scutellarin. I have made pretty extensive trial of the concentrated tinctures of B. Keith & Co., of New York, and I am persuaded that in the 'eclectic medicines' we have remedies too little known, and the value of which will be more and more appreciated. I have found the extremely disagreeable taste of some of the concentrated tinctures a disadvantage; but it can generally be surmounted by glycerine, oil of lemon, or other devices of elegant pharmacy. In children this is essential. We have no right to give children filthy doses, when a little skill and consideration can make this nauseous drug pleasant. With this 'caveat' I earnestly advocate a sensitive use of some of these potent agents. Gelsemin is a nervine tonic, of marked value in many convulsive affections. Scutellarin soothes and quiets the irritability of the nervous system, lessens cerebral excitement, and at the same time excites diaphoresis and diuresis. Their alterative use and their use in combination I am testing as opportunity offers. The dose of Keith's tincture of gelsemin for a child five or six years old is one drop; the same of scutellarin." Effectual diuretic action is also attributed to the tincture of eupururia (*eupatorium purpureum*), in four-drop doses. In the list of drugs at the end of the book, many others of these remedies are credited with valuable therapeutical properties.

The author's statement of the great value of phosphorus in "neuralgia, epilepsy, hysteria, chorea, tuberclosis and its many manifestations, scrofula, defective nutrition, and debility generally," in older children, should, we think, be accepted with reserve, inasmuch as he uses it always in combination with other active drugs, as quinine, iron, and *nux vomica*, the mixture with the two last of these being his favorite prescription where there is present anæmia or chlorosis.

Chapter IX., General Therapeutic Hints and Formulary, is the longest in

the book. The few general hints given are very good. In the formulary much is told us on the subject of drugs, which are arranged in groups under conventional heads ; and in addition there are given two hundred and thirty-three prescriptions. Several of these are taken from old authors, as Evanson and Maunsell, Underwood and Dewees ; some are credited to more modern writers on children's diseases, as Rousseau, Bouchut, West, and Meigs ; a few bear the names of writers less known to fame on this side of the water. The majority, however, are his own. At the head of the formulary it is stated that the doses are such as to be generally suited for children three years old ; and that when a lower and a higher dose are given the lower dose is intended for a child about three, the higher for a child nine or ten years old. If this rule is literally followed, there will be found several prescriptions where the doses would be usually regarded as unnecessarily large ; in some cases dangerously so. As belonging to this class we would enumerate : —

Formula 86, where one grain of the extract of belladonna is prescribed for a child nine or ten years old every two or three hours ; formula 19, where the dose of extract of conium is given as one grain every four to six hours, for a child three years old ; formula 106, containing three quarters of a grain of powdered digitalis, and no age mentioned, copied from Rousseau. The same exception is to be taken to another prescription of Rousseau's, introduced in the treatment of chorea, and known as his "syrup of strychnia," which we believe to have been abandoned by nearly, if not quite all, writers on diseases of children as unwarrantably dangerous. The original formula, as is well known, contains one grain of the sulphate of strychnia to two and one half ounces of syrup, the dose being two drachms, to be given in the twenty-four hours, with rules for gradual increase of this amount until toxic effects are produced. It is made doubly dangerous in the present book by not mentioning the proper age at which it should be given, and by giving directions for its use three times a day, in place of once daily, in divided doses. The vehicle is wrongly quoted as three and a half ounces of syrup instead of two and one half ; but this, fortunately, would enure to the patient's advantage. Ten grains of the citrate of iron and quinine, and one drachm of the syrup of the iodide of iron, in formulæ 33 and 34, would be generally regarded as unnecessarily large doses for even the oldest children.

Formula 16 has been wrongly copied from Dewees, the menstruum being given as three drachms instead of three ounces, whereby the dose of laudanum recommended to be given every hour would be dangerously great. In a prescription of Dr. T. King Chambers, quoted in the treatment of diarrhoea, the author has substituted minims of tincture of opium in place of drops, by which the dose in the original formula has been doubled. In formula 66 it is evident that infusion of arnica should be four ounces in place of four drachms. *Solutio nucis vomicae*, formula 78, should of course read *extract. nucis vomicæ*.

In the prescriptions that are peculiarly the author's, the quantities given contain only one dose ; so that to change them into a form suitable for dispensation, a good deal of multiplication is rendered necessary for those who might desire to make use of them.

The publishers' work has been well done, the book forming one of the series known as Wood's Library of Practical Medicine.

QUARANTINE VERSUS DISINFECTION.

THE National Board of Health, in its Bulletin of July 12th, issued a circular, from which we quote as follows:

"The Executive Committee of the National Board of Health invites the attention of all state and municipal authorities and sanitary organizations to the fact that they should, without delay, endeavor to secure the best sanitary condition of the places and people under their charge.

"Whatever opinions may be held as to the causes of yellow fever and of the recent appearance of that disease in Tennessee and Mississippi, it is best to act as if it were a disease due to a specific particulate cause which is capable of growth and reproduction, transportable, and may be destroyed by exposure to a temperature above 240° Fahrenheit, or by chemical disinfectants of sufficient strength if brought into immediate contact with it.

"It is also prudent to assume that the growth and reproduction of this cause is connected with the presence of filth, in the sanitary sense of that word, including decaying organic matters and defective ventilation, as well as of high temperature.

"The cases of yellow fever recently observed should be considered as due to causes surviving from last year's epidemic, and not to recent importation from other countries. It follows that there is a liability to the appearance of other cases in places visited by the epidemic of last year, and that there is danger of the spread of the disease to the North and the East.

"In a previous circular this board has advised as to the means which should be adopted, so far as the usual channels of transportation are concerned, to prevent the spread of the disease."

It is to be hoped that the energetic measures taken may be successful in limiting the range of the present epidemic and in averting future ones, although it is not probable that occasional visitations, in a mitigated form, can be avoided by the strictest quarantine combined with the most thorough sanitary regulations which can be enforced. The wisdom which comes from experience will be dearly bought by the unfortunate people of Memphis, whose refugees fare little better than did the lepers of old.

From the writings of many Southern physicians (as was pointed out in a recent number of the *JOURNAL*¹), especially since the epidemic of last summer, it is clear, that however foreign to this country yellow fever may once have been, it must now be regarded as sometimes of local origin. Typhoid fever, which it is said was never known in Australia until its introduction by immigrants, is now nearly or quite as prevalent as it is in England. The greater virulence of the yellow-fever poison would tend to give it a firmer foothold, provided that the local conditions are favorable for its reception; and the cases which occurred on the Plymouth, after wintering in a northern latitude, throw new light upon the vitality of the germs.

While the newspapers are full of abuse of the authorities at Memphis for the filthy state of their city, now that the fever has broken out afresh, and there appears to be no escape from the conclusion that its origin was purely

¹ June 19, 1879.

local, the rekindling of the flame which has been dormant during the colder months, — it is interesting to look back to the report of the Yellow Fever Commission, at Richmond, last November. Among the preliminary conclusions, we find the following: —

“ 1. We have not, in a solitary instance, found a case of yellow fever which we could justifiably consider of *de novo* origin, or indigenous to its locality.”

The proposition which declared that yellow fever was a specific disease not indigenous to or originating spontaneously in the United States, was so modified as to apply to the year 1878 only, although the uncertainty with regard to its importation, in that year, through two doubtful cases at New Orleans, was notorious. In short, quarantine was the sole remedy, or nearly so; the prejudices of the South demanded it, and so it must be. As the South was chiefly interested in the matter, and the question of filth as bearing upon the propagation or spread of yellow fever, was not an agreeable one, the matter was thus disposed of, although an additional proposition was finally agreed to, which stated the importance and value of internal sanitary measures in the prevention or modification of epidemic yellow fever, and urged upon state and municipal authorities the great amount of responsibility which rested upon them, on this account, at times when *no disease was prevalent or threatening*. Our able and frequent contributor, Dr. C. F. Folsom, who was then at Richmond, showed at that time and in many previous and subsequent articles the entire disregard of sanitary precautions throughout our towns, and whatever the local boards of health may have done in the mean time, or the National Board with its coercive powers, it does not appear that the favorite delusions with regard to yellow fever have yet been violently assailed.

MEDICAL NOTES.

— There seems to be a disposition in the daily press to undervalue the services of the National Board of Health. Bad jokes are cracked at their expense; enterprising correspondents relate how they have slighted the suggestions of a prominent politician, how extravagant they have been in the use of the funds appropriated, etc. Although the composition of the board is not all that could be desired, as anything generated from a political source must of necessity be in this country, the public should understand that the profession is thoroughly in sympathy with the work they have in hand, and that such men as Drs. Bowditch and Billings, not to mention several others, are men for whom we entertain the highest respect, and that the gallantry of Dr. Mitchell during the present epidemic at Memphis is eliciting warm praise. The organization of a sanitary department for this country, which shall be perfectly effective, will occupy many years, and will prove one of the most instructive problems in the history of sanitary science.

— The American Otological Society met at Newport, R. I., on July 23d. The following officers were elected for the ensuing year: Dr. Albert H. Buck, president; Dr. Charles H. Burnett, vice-president; and Dr. J. J. B. Vermyne, of New Bedford, treasurer, Dr. J. Orne Green having declined re-election. The Ophthalmological Society met the following day at the same place. The attendance was quite large. Dr. H. D. Noyes, of New York,

was elected president; Dr. W. F. Norris, of Philadelphia, vice-president; Dr. R. H. Derby, of Boston, secretary and treasurer; and Dr. J. S. Prout, of Brooklyn, corresponding secretary. The American Dermatological Association will hold its third annual meeting in New York on August 26th.

— The exercises held at the complimentary dinner lately given to Professor S. D. Gross have appeared in book form, with a beautiful photograph of the professor as a frontispiece. So well deserved a compliment and successful entertainment needed a memento of this kind, which is prepared in excellent taste by the secretary of the committee, Dr. Mears.

— During Dr. Choate's absence in Europe, Dr. George F. Jelly, lately medical superintendent of the McLean Asylum, is to take charge of the admirable private asylum for the insane at Pleasantville, N. Y.

NEW YORK.

— Since the last report several cases of yellow fever have been discovered in New York and Brooklyn, but in every instance the patient had recently come either from Memphis or Havana. The most remarkable one was that of a young woman who arrived from Havana on the 2d of July, and some time afterward was sent to the Presbyterian Hospital in this city from the Marine Hospital, where she was supposed to be suffering from malarial fever. She was stewardess on the bark Wallace, which sailed from the above port on the 19th of June. When the vessel reached the New York quarantine four of the crew were found to be down with yellow fever, and were taken to the hospital on Swinburne Island; after which it was detained at quarantine fourteen days, and disinfected with unusual care, on account of its bad condition. All this occurred so long ago that it is difficult to account for the appearance of yellow fever now in any one connected with the boat, unless the stewardess who was attacked may have opened some piece of luggage which was not thoroughly disinfected, and thus taken it. This patient was admitted to the Presbyterian Hospital on the 26th of July, and died on the 29th; and it was not suspected that she had yellow fever until just before her death, when she became somewhat jaundiced, although there was no black vomit. At the autopsy, however (which was made in the presence of Dr. Day, sanitary superintendent, and Professor Janeway, one of the health commissioners), unmistakable evidences of the presence of the disease were discovered. When this was found to be the case, Health Officer Vanderpoel was notified, and he immediately ordered the bark Wallace to return at once to quarantine. Yellow fever seems to be unusually prevalent at Havana this season, and it is announced that no less than one hundred and seventeen deaths from it occurred there during the week ending July 26th.

A party of eleven refugees from Memphis were last week sent to the quarantine hospital by the health authorities, but have now been discharged; the period of incubation having passed, and no symptoms of yellow fever having shown themselves. On their arrival in New York they went to live in a Harlem tenement house, and the attention of the board of health was directed to them by the death of one of their number from yellow fever. Some of the others appeared to be unwell, and all were therefore sent to Swinburne Island. Quarantine Commissioner Oakley, who has just made an inspection of the hos-

pital at this point, praises very highly the conduct of one of the nurses, who has always been distinguished for his faithful services, and who now refuses to give up his position there until after the yellow fever season is over, notwithstanding the fact that a relation in England has just bequeathed him twenty thousand dollars. Mr. Oakley reports that everything at the hospital is in excellent condition, and that there are, at present, only three yellow fever patients remaining there.

In Brooklyn, where two or three cases of imported yellow fever have occurred, extraordinary precautions are being taken to detect such in the future at the earliest possible moment. The superintendent of police, acting under the supervision of the sanitary superintendent, has instructed the police captains to discover, if possible, all persons who might arrive from Memphis or any infected district in the South, and in the event of such persons being found to report their names and residences immediately to the board of health; while the proprietors of hotels and boarding-houses and the principals of schools and private institutions have been reminded that under the sanitary code they are obliged to give notice of all cases of contagious disease occurring among their guests or the persons in their charge. In addition, the water front of the city has been divided into three sections, and placed in charge of officers of the sanitary squad, who are to patrol them, and visit every incoming vessel for the purpose of examining her permits and learning if there is any sickness on board.

In view of the unremitting vigilance of Dr. Vanderpoel and his staff at quarantine, this latter measure would seem to be a work of supererogation; but, as the president of the New York Board of Health lately remarked in a conversation with the postmaster, "the public will waste money and give the board of health anything it wants if only one case of yellow fever is reported at quarantine; but during the remainder of the year it allows more formidable diseases to prevail, and does not attempt to prevent them. If the people of New York," he continued, "were as fully alive to the importance of scarlet fever, as a source of mortality, and would give the board assistance to fight it properly, it would in a few years be almost unknown." He then ventured the statement that more deaths resulted from scarlatina in the State of New York last year than from yellow fever in the South. Health Commissioners Chandler and Janeway have had an interview with Postmaster James in regard to the advisability of fumigating letters received from districts infected with yellow fever after their arrival in this city, and they both stated that they agreed with Dr. Vanderpoel in the opinion that there was no necessity whatever for this, the place where the mails should undergo fumigation being the quarantine boundary of the infected district.

— A short time since the health commissioners held a special meeting to consider the new tenement house act, which last month received the approval of the governor. In the city there are twenty-five thousand tenement houses, and as it has been established that two thirds of the infant mortality is in these buildings it was decided to make a survey of all of them, in order to ascertain how far they can be altered so as to bring them up to the requirements of the new act without unnecessary expense to the owners. The board

of appointment has appropriated a considerable sum for the purpose, and now a corps of thirty-two inspectors, composed of physicians, architects, and engineers, has been appointed to make the examination and suggest means of conforming existing tenements to the law. The board of health has also applied to the police commissioners for a detail of thirty men of experience to carry out its provisions. There has been a marked improvement in the character of the houses erected lately, and owners, builders, and architects are bringing in their plans daily to see if they are in accordance with the requirements of the law and meet the approval of the board of health. One of the most important features of the new law is the provision restricting the building to sixty-five per cent. of the area of the lot. The law, however, gives the board the discretion in cases where special provision is made for light and ventilation, to allow the building to cover a larger proportion of the ground than this; but in all cases a space of ten feet must be left in the rear of every lot, and, besides, every room which is to be occupied is to have one or more windows opening into the outside air.

CHICAGO.

— Prof. W. H. Byford left on the 24th of July for Cork, to deliver an address before the annual meeting of the British Medical Association, soon to take place there. He goes by official invitation. It is understood that his subject will be Fibroid Tumors of the Uterus, with which he is, perhaps, more familiar than any other American physician.

— The city is being inspected by a number of volunteer physicians, acting under orders of the commissioner of health, who are carefully examining the condition of all tenement houses. So far the results have shown a better hygienic standard than most of us had expected; indeed, better than is the rule with such houses in most large cities.

LETTER FROM ST. LOUIS.

Sunstroke.—Yellow Fever.

MR. EDITOR,— With the return of the summer months and their intense heat, there has been considerable anxiety lest old Sol should renew his onslaught upon us, and the scenes of last year should be repeated. The thermometer has been ranging higher than it did a year ago, though for the last three days the temperature has been very pleasant. With the heat there were refreshing breezes, which undoubtedly saved many lives. Thus far, July 20th, there have been only nine deaths from solar heat; last year, from July 10th (before which time there seem to have been none) to the date corresponding with the present, one hundred and fifty-four deaths occurred; after that time there were fifteen additional fatal cases. In anticipation of another visitation, a large hall at the City Dispensary has been prepared for the treatment of such cases as may be brought there without waiting to transfer them to the City Hospital. The treatment is based on the theory that the condition is due to an elevation of the temperature of the body, and that many of the symptoms are due to the effects of heat upon the nervous centres. The ra-

tional treatment accordingly is to reduce the temperature as soon as possible. Unfortunately, there were no thermometric observations of temperature taken at the dispensary, but to the hand there was a very decided increase in the bodily heat. At the hospital the thermometer was used, but by the time the patients reached there they had generally been under treatment for some hours, and the records of temperature and pulse do not seem to have been preserved.

The line of treatment is as follows: As soon as the patient is received his shirt, shoes, and stockings are removed, his trousers rolled up or taken off, and he is placed on a woven-wire mattress with nothing over it, so that the air has free access from below as well as above. The beds are placed where there is a draught. Ice-bags are applied to the head, and ice or ice-water to the extremities, care being taken not to allow the cold application to come in contact with the abdomen. In one case seen by your correspondent, I think in several, upon the second day there was marked abdominal tenderness and tympanites, simulating peritonitis. If under the cooling treatment symptoms of depression or exhaustion manifest themselves, stimulants are administered,—ammonia, ether, whisky, and hypodermic injections of atropia sulphate. This method of treatment seems to be the most successful as well as the most rational.

The poor of course suffer intensely with the heat, and it is thought by some that the large mortality among children is due to the lack of free use of ice among those who cannot afford to buy it. Accordingly, there has been an "ice mission," as it is called, started, and contributions of ice and money are being made. The flower mission has charge of the collection of money, etc. Tickets reading "Good for five cents' worth of ice" are furnished to the captains of the police force to distribute to such cases as they may think require them. These tickets are indorsed by the chief of police, and will be redeemed in cash at his office upon presentation. It is possible that the effect of ice-water upon the alimentary canal of children may be injurious rather than beneficial, especially as the great mortality among children is chiefly due to cholera infantum.

At present the yellow fever seems to be staring us in the face. In view of last year's experience in this city and the number of negroes that the "exodus" is constantly bringing among us from the South, there is some uneasiness. Yesterday our board of health met and established quarantine against Memphis. No freight from Memphis will be received in St. Louis. Passengers coming from there will be inspected before they reach the city, and any suspected of having yellow fever will be detained at Quarantine Hospital, ten miles below. All coming from the South in good health will be gladly received.

Drs. T. F. Outley and F. R. Eversole are to be stationed at quarantine. Dr. Outley served there last year, and has had some experience in treating the disease. It is also the health commissioners' intention to appoint two of our best practitioners as consulting physicians. The rules and regulations of the National Board of Health were approved and indorsed by the St. Louis board, and will be enforced wherever practicable.

MEDICO-LEGAL NOTE.

DELAYED SHOCK.

THE recent "whipping case" at Malden has excited considerable local interest, and is also worthy of notice from a medico-legal point of view. The deceased, William Bagley, was twelve years old. Although he had had a white swelling of the knee in his infancy, leaving the joint bent and ankylosed, necessitating the use of a crutch, he was a "remarkably healthy and active boy." On the 20th March he received punishment at school, consisting of five or six slaps on each hand with a rattan in the usual manner, the only marks of which were a slight cut on the thumb and a swelling on the forefinger. The boy made no complaint of illness until four days subsequently, when he begged to be excused from going to school on account of a pain in his stomach. The doctor who was called in the evening, a few hours before his death, found him almost pulseless and unconscious. He had been growing steadily worse during the day, the parents appearing to be unable to give a clear account of his condition.

There seems to have been no suspicion at the time of his death of criminal violence, but the attention of the Society for the Prevention of Cruelty to Children was afterwards called to the case, and their agent, Dr. Dixwell, insisted upon an autopsy, which was performed twenty-four days after death. Decomposition had set in, but had evidently been delayed, owing to the coldness of the ground. Nothing unhealthy was found, except a possible ulceration of the tonsils, "marked absence of blood clots," and the ankylosed knee. Dr. Dixwell, the agent of the society, testified at the inquest that the symptoms were exactly those of nervous shock, of which, in his opinion, the boy died. The testimony of the other physicians went to show that "delayed nervous shock" is not a recognized pathological condition, but that, as Dr. Cutler expressed it, "the boy died of some undeveloped disease, that is, some disease whose symptoms were not sufficiently distinctive." A verdict was rendered in accord with the latter view, and that the punishment was not unusual, excessive, or cruel. This case is somewhat analogous to the Charlestown poisoning case, where rumor was busy in assigning causes for death which were without foundation. In the present instance, although the medical examiner, Dr. Sullivan, thought no inquest necessary, the reports subsequently circulated seriously inculpated the teacher, and beside giving rise to a great deal of ill feeling placed the Society for Prevention of Cruelty to Children in the attitude of bringing a grave charge, based on a theory which could not be sustained, against an innocent person. This is much to be regretted, as the society is doing an excellent work, and should enjoy the sympathy and confidence of all classes in the community.

SHORT COMMUNICATIONS.

WOMEN AT ZURICH.

WE have received the following copy of a letter from Zurich, sent us by Dr. H. I. Bowditch:—

"I cannot imagine where you hear such remarkable stories about Zurich, when there is really not the shadow of a foundation for them. Let me say, then, once more, Zurich is now, and, for all anybody can see, always will be, open to women. So far the experiment has worked well. The women have steadily gained ground, and the opposition has steadily diminished. Even the students are not so bitterly opposed to us as formerly, and many of them treat us as their equals. This term Professor Hermann has a woman assistant, and I am with Professor Rose. The latter was bitterly opposed to us at first, but has been completely won over to our side. To prove this I will relate a little incident:—

"I had very much wanted this place, and in order to get it applied a year in advance. Toward the close of last term a student came to me, and said he very much wanted the place with Professor Rose, and the professor said he might ask me if I could wait one term longer. I went to see the professor, and told him I wanted the place very much, and must have it now or never, but if he preferred the student to me I would withdraw. He replied, "No;" I had applied first, and therefore had the best right, and he would never allow a woman to say again that she had not just as good a chance with him as a man. A little

while afterwards I heard the student was very angry, and proposed to make it unpleasant for me. In order to avoid any trouble, I went again to the professor, and told him it seemed best after all for me to withdraw. He insisted upon knowing my reason, and then told me to leave that to him; he would see whether any one would dare to interfere with me. I took his advice, and the result has been most satisfactory."

INSOMNIOR.

We hope the Railroad Commissioners will make further attempts to prevent unnecessary whistling on the different lines entering the city. In addition to the observations we have made from time to time regarding the bearings of this nuisance on the public health and comfort, we are pained this week to have to publish the following lines, which evidence the wreck of a once fine mind, — the result of insomnia induced by the diabolical whistle: —

The shades of night were fading fast,
When through the sleeping suburbs passed
A train with screech and howl and bell,
And 'scaping steam and fourfold yell, —
Toot, toot: tut, tut!

The engineer was tired and mad,
Thought others' sleeping was too bad;
So like a devil's fierce despair
Rang the wild roar on the night air,
Toot, toot: toot, toot!

In happy homes he saw wide ope
The chamber window, in the hope
Cool airs might lull to welcome dream;
Right in the casement dins the scream,
Tooot, tooot: toot, toot!

"Cuss that ingine!" said Deacon Beal;
"Bad 'cess to yez!" cried Father Niel;
Prayed Dr. Graves, just gone to bed,
"I wish that engineer were dead!"
Tooot, tooot: toot, toot!

"Oh, dear," the maiden cried, "no rest
For the dread cough that racks my breast;
I thought sweet sleep was drawing nigh."
Instead, the cars shriek clattering by,
Tooooooot, tooooooot: toot, toot!

"Beware the tie athwart the track;
Beware the switch misplaced a crack," —
This was the tramp's last grim good-night.
The whistle bellowed in affright
Tooooooot, tooooooot: toot, toot!

The mother's last convulsion o'er,
Hope beamed upon the house once more.
To death's black door she turned again,
When startled by the whooping train,
Tooooooot, tooooooot: toot, toot!

And in the twilight cold and gray,
The depot reached, the driver 'll say,
"I 've waked and scared more folks to-night
Than half a year will e'er put right."
Tooooooot, tooooooot: toot, toot!

DIFFICULT LABOR.

MR. EDITOR, — I have recently met with a peculiar case in obstetrics. Mrs. W., primipara, aged twenty, was taken with symptoms ushering in parturition Friday morning, 25th inst. Occasional pains during the day, but down-stairs. Saturday morning. Still lingering pains. She was ordered $\frac{1}{2}$ oz. ricin. f $\frac{3}{4}$ ij. In the afternoon I was summoned, and found the os dilated to the size of a quarter dollar, and the edges unyielding. There had been no amniotic fluid. The labor grew more severe, and ether was freely used. The first stage was completed at midnight; still the head did not descend within reach of forceps. Vagina narrow. I was sure that the delay was due to the size of the fetal head, as compared with the diameters of the superior strait. The head finally engaged about five A. M., Sunday, and she gave birth to a male infant (nine pounds), no liquor amnii following. The head was not so much disfigured as I have witnessed before, yet the compression was serious, and the infant to-day has slight convulsions. He is ordered bromide of potassium in three-grain doses every hour, and is more quiet. I have not much hope that he will live. The rarity of cases without any amniotic fluid is, I think, worthy of note. I have never met with one during twenty six years' practice. I feared a case of locked head for some time. The patient would not consent to the use of the forceps. Mother doing well.

EVERETT, July 28th.

I. F. WAKEFIELD.

HOG CHOLERA.

MR. EDITOR.—The following are the ingredients used in Dr. Joe Haas's hog cholera remedy, which is used extensively in the West for arresting disease so prevalent among swine:—

| | |
|-------------------------|-----------|
| Ashes | 20 parts. |
| Lime | 20 parts. |
| Salt | 1 part. |
| Soda | 2 parts. |
| Bayberry | 2 parts. |
| Capsicum | 2 parts. |
| Arsenic | 1 part. |
| Calomel | 1 part. |
| Spanish brand | 6 parts. |
| Flour | 3 parts. |
| Tonca bean | 1 part. |

This remedy has proved very efficient, and I place it at your disposal, believing that it will prove of interest to many of your readers. It should be given as follows: one even tablespoonful twice a day for each hog when sick. When used as a preventive: one tablespoonful for each three hogs once or twice a week. Respectfully yours, A. W. B.

INDIANAPOLIS, IND.

REPORTED MORTALITY FOR THE WEEK ENDING JULY 26, 1879.

| Cities. | Population estimated for July, 1879. | Reported Deaths in each. | Annual Death-Rate per 10,000 during the Week. | Percentage of total Deaths from | | | | |
|--------------------------------|--------------------------------------|--------------------------|---|---------------------------------|----------------------|----------------|------------|-----------------------|
| | | | | The Principal Zymotic Diseases. | Diarrhoeal Diseases. | Scarlet Fever. | Pneumonia. | Diphtheria and Croup. |
| New York | 1,085,000 | 600 | 28.83 | 41.50 | 29.83 | 3.67 | 3.50 | 2.00 |
| Philadelphia | — | — | — | — | — | — | — | — |
| Brooklyn | 564,400 | 255 | 23.56 | 45.49 | 31.86 | 2.74 | 1.96 | 3.53 |
| Chicago | — | 215 | — | 45.12 | 33.49 | 3.26 | 2.79 | 3.26 |
| St. Louis | — | 173 | — | 42.20 | 32.95 | 0.57 | 2.31 | 0.57 |
| Baltimore | 365,000 | 154 | 22.00 | 36.33 | 25.32 | 3.25 | 3.25 | 1.95 |
| Boston | 351,000 | 152 | 22.65 | 40.13 | 35.55 | 0.66 | 5.32 | 1.96 |
| Cincinnati | 259,000 | — | — | — | — | — | — | — |
| New Orleans | 210,000 | 103 | 25.50 | 25.34 | 12.67 | — | 2.90 | 0.96 |
| District of Columbia | 160,000 | 104 | 33.89 | 28.85 | 21.15 | — | 0.96 | 0.96 |
| Cleveland | — | 101 | — | 49.51 | 45.54 | 1.98 | 0.99 | — |
| Pittsburgh | — | 71 | — | 54.93 | 33.80 | 11.27 | 5.63 | 5.63 |
| Buffalo | — | — | — | — | — | — | — | — |
| Milwaukee | — | 52 | — | 38.46 | 28.85 | — | 1.92 | 5.76 |
| Providence | 101,500 | 45 | 23.12 | 42.22 | 24.44 | 4.44 | — | 6.67 |
| New Haven | 60,000 | 21 | 18.25 | 14.29 | 9.52 | — | 4.80 | — |
| Charleston | 57,000 | 42 | 31.67 | 21.43 | 14.28 | — | 2.38 | 2.38 |
| Nashville | 27,000 | 20 | 38.62 | 15.00 | 10.60 | — | — | — |
| Lowell | 53,310 | 28 | 27.38 | 33.29 | 35.71 | — | — | — |
| Worcester | 52,500 | 27 | 26.81 | 14.81 | 11.11 | — | — | — |
| Cambridge | 50,000 | 18 | 18.77 | 51.0 | 44.44 | — | — | — |
| Fall River | 48,510 | 35 | 37.63 | 71.43 | 60.00 | 11.43 | — | — |
| Lawrence | 38,299 | 24 | 32.76 | 62.50 | 54.17 | — | — | 4.17 |
| Lynn | 34,000 | 15 | 23.01 | 26.67 | 20.00 | — | — | 6.67 |
| Springfield | 31,500 | 12 | 19.86 | 25.00 | 16.67 | — | — | — |
| New Bedford | 27,000 | 11 | 21.24 | 45.45 | 45.45 | — | — | — |
| Salem | 26,400 | 8 | 15.80 | 12.50 | — | 12.50 | — | — |
| Somerville | 23,350 | 6 | 13.40 | 50.00 | 16.67 | 16.67 | — | — |
| Chester | 21,800 | 6 | 15.04 | 16.67 | 16.67 | — | — | — |
| Taunton | 20,240 | 10 | 25.81 | 10.00 | 10.00 | — | — | — |
| Holyoke | 18,200 | 12 | 34.38 | 33.33 | 8.33 | 16.67 | 8.33 | — |
| Gloucester | 17,100 | 9 | 27.44 | 22.22 | 11.11 | — | — | 11.11 |
| Newton | 17,100 | — | — | — | — | — | — | — |
| Haverhill | 15,300 | 8 | 27.26 | 37.50 | 25.00 | — | — | — |
| Newburyport | 13,500 | 6 | 23.17 | — | — | — | — | 12.50 |
| Fitchburg | 12,500 | 3 | 12.61 | 33.33 | — | — | 33.33 | — |

Two thousand three hundred and and fifty-six deaths were reported against 2895 for the previous week: 941 from the principal "zymotic" diseases, 685 from diarrhoeal diseases, 239 from consumption, 64 from pneumonia, 70 from scarlet fever, 59 from diphtheria and croup, 38 from malarial fevers, 24 from whooping-cough, 22 from typhoid fever, 19 from bronchitis, 17 from measles, 11 from cerebro-spinal meningitis, nine from erysipelas, seven from trismus nascentium, seven from pleurisy, two from yellow fever, small-pox none. From *malarial fevers*, 11 deaths were reported in New York, nine in St. Louis and New Orleans, three in Baltimore and District of Columbia, one in Chicago, New Haven, and Charleston. From *whooping-cough*, nine in New York, five in Brooklyn, two in Baltimore and District of Columbia, one in Chicago, Boston, New Orleans, Cleveland, Pittsburgh, and Milwaukee. From *typhoid fever*, three in St. Louis and Providence, two in Brooklyn, Chicago, and Baltimore, one in New York, New Orleans, District of Columbia, Milwaukee, Nashville, Worcester, Cambridge, Lawrence, and Fitchburg. From *measles*, nine in New York, three in Chicago, one in Brooklyn, Baltimore, Cleveland, Pittsburgh, and Charleston. From *cerebro-spinal meningitis*, three in Chicago, two in New York, one in St. Louis, Baltimore, Pittsburgh, Springfield, Somerville, and Holyoke. From *erysipelas*, four in Boston, one in Chicago, St. Louis, New Orleans, and District of Columbia. From *trismus nascentium*, three in New Orleans and Charleston, one in District of Columbia. From *yellow fever*, one in New York (refugee) and one in Brooklyn (imported). The death-rate in District of Columbia was for whites 25.1; colored 50.08. One death from sunstroke was reported in Baltimore.

The noteworthy changes for the week are a great decrease in the total mortality; also from consumption, the principal "zymotic" diseases, bronchitis, and diarrhoeal diseases. In eighteen of the nineteen cities of Massachusetts, with an estimated population of 841,950, there was a marked increase in diarrhoea, and less so of consumption; diphtheria and scarlet fever had diminished.

The weather for the week was cooler, in many places with heavy rains. The mean temperature in New Orleans was 81.4°, Brooklyn 74.45°; range 10.3° and 26.5°; rainfall 1.29 and 1.51 inches. The meteorological record for the week in Boston was as follows:—

| Date. | Barom- eter. | Thermom- eter. | Relative Humidity. | | | Direction of Wind. | | | Velocity of Wind. | State of Weather. ¹ | Rainfall. | | | | |
|---------|-----------------|-------------------|-----------------------|----------|---------|-----------------------|---------|---------|----------------------|-----------------------------------|----------------|---------|---------|------|------|
| | Mean. | Mean. | Maximum. | Minimum. | 7 A. M. | 2 P. M. | 9 P. M. | 7 A. M. | 2 P. M. | 9 P. M. | 7 A. M. | 2 P. M. | 9 P. M. | | |
| July 20 | 30.272 | 65 | 77 | 54 | 80 | 40 | 72 | 64 | W | S | SW | 8 | 12 | 11 | |
| " 21 | 30.180 | 68 | 77 | 58 | 78 | 49 | 79 | 69 | SW | S | SW | 10 | 16 | 11 | |
| " 22 | 29.970 | 73 | 84 | 62 | 89 | 54 | 80 | 74 | SW | SW | S | 12 | 10 | 6 | |
| " 23 | 29.751 | 72 | 75 | 68 | 92 | 81 | 95 | 83 | SW | SW | SW | 6 | 12 | 10 | |
| " 24 | 29.963 | 69 | 74 | 66 | 63 | 63 | 65 | N | NW | E | N | 9 | 10 | 1 | |
| " 25 | 30.117 | 63 | 71 | 59 | 50 | 68 | 94 | 71 | N | E | E | 6 | 10 | 6 | |
| " 26 | 29.947 | 60 | 65 | 58 | 88 | 100 | 100 | 96 | E | NE | E | 10 | 13 | 7 | |
| Week. | 30.029 | 58 | 84 | 54 | | | 75 | | SW | | 1547 miles. | | | 20.3 | 1.08 |

¹ O, cloudy; C, clear; F, fair; G, fog; H, hazy; S, smoky; R, rain; T, threatening.

During the week ending August 2d there were 28 deaths (from all causes 44) from yellow fever in Memphis, and 80 reported cases, against 85 cases and 37 deaths of the previous week. The population has been reduced to one third its usual number, of whom less than one half are susceptible to the disease. Camps out of the city, of eight thousand capacity, have been formed for those who cannot leave it. Another refugee has died in New York and Louisville, and one in St. Louis; also a case (possibly imported) in New Orleans. There was one case (refugee) in Cincinnati, and five were under observation in New Orleans, reported to be yellow fever. Very stringent quarantine regulations have been adopted against Memphis and New Orleans, in the former city amounting to almost absolute non-intercourse. The sanitary work done in both cities is admirable, and hopes are entertained that a general epidemic may still be prevented.

For the week ending July 5th, in 149 German cities and towns, with an estimated population of 7,432,536, the death-rate was 28.1 (previous week 28.2), with a marked increase in measles and diarrhoeal diseases, and diminished fatality from consumption and pulmonary diseases. Four thousand and eleven deaths were reported: 852 from diarrhoeal diseases, 474 from consumption, 166 from acute diseases of the respiratory organs, 91 from diphtheria and croup, 54 from measles, 44 from whooping-cough, 44 from typhoid fever, 43 from scarlet fever, 17 from puerperal fever, three from typhus fever, none from small-pox. The death-rates ranged from 9.4 in Erfurt to 50.1 in Berlin; Königsberg 38.2; Dantzig 30.1; Breslau 28.5; Munich 36.9; Stuttgart 27.5; Dresden 26.8; Nuremberg 22.8; Leipzig 17.5; Hamburg 22.1; Hanover 18.9; Bremen 25.9; Cologne 22.6; Frankfort-on-the-Main 19.0; Strassburg 30.8; Darmstadt 24.1. Also for the same week, Vienna 25.9; Prague 36.4.

For the week ending July 12th, in the 20 English cities having an estimated population of 7,383,999, the death-rate was 17.6, a decrease of 0.3 from the previous week, showing an increase in diarrhoeal diseases, whooping-cough, and measles. Fewer deaths were reported from small-pox than in any other week since last December. Two thousand four hundred and ninety-two deaths were reported: 180 from diseases of the respiratory organs, 92 from measles, 91 from scarlet fever, 88 from whooping-cough, 54 from diarrhoeal diseases, 31 from fever, 13 from diphtheria, and four from small-pox (in London). The death-rates ranged from 13.1 in Oldham to 21.4 in Bristol and Hull; London 17.0; Brighton 13.3; Birmingham 16.9; Liverpool 18.6; Manchester 20.2; Leeds 15.9. For Edinburgh 18, Glasgow 22, Dublin 22 (small-pox eight deaths). In the same week, Geneva 19.2; Zurich 21.3; Basle 21.7; Lucerne 29.7

BOOKS AND PAMPHLETS RECEIVED.—A Manual of Midwifery for Midwives and Medical Students. By Fancourt Barnes, M. D. Aber., M. R. C. P. Lond. With Illustrations. Philadelphia: Henry C. Lea. 1879.

Medical Heroism of 1878. By J. W. Singleton, M. D. Paducah, Ky. (Reprint from St. Louis Medical and Surgical Journal.) 1879.

Twenty-First Annual Announcement of the Chicago Medical College. 1879.

Annual Report of the St. Louis Medical College. 1879.

The Massachusetts Children's Protective Society. First Annual Report. Boston. 1879.

The Future Influence of the Johns Hopkins Hospital on the Medical Profession of Baltimore. By John Van Bibber, M. D. 1879.

Étude historique et Clinique sur la Trépanation du Crane. La Trépanation guidée par les Localisations cérébrales. Par le Dr. Just Lucas Championnière, Chirurgien des Hôpitaux de Paris, etc. Paris: V. A. Delahaye et Cie. 1878.

The Advantages and Accidents of Artificial Anæsthesia. A Manual of Anæsthetic Agents, and their Employment in the Treatment of Disease. By Lawrence Turnbull, M. D., Ph. G. Second Edition, revised and enlarged. With Twenty-Seven Illustrations. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

L'Année médicale. Résumé des Progrès réalisés dans les Sciences médicales. Publié sous la direction du Dr. Bourneville. Paris: E. Plon et Cie. 1879.



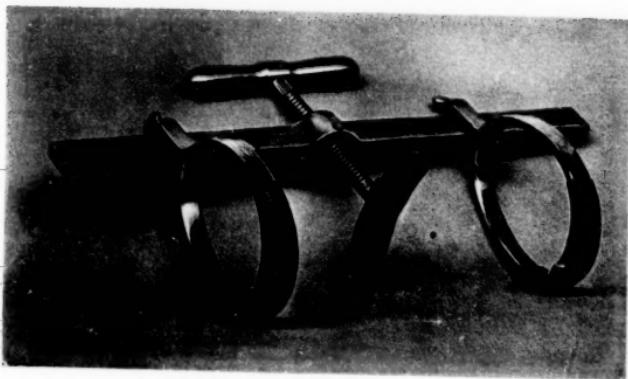


FIG. 1



FIG. 2